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Original Articles

A CASE OF TYPHOID FEVER WITH THROMBOSIS OF THE FEMORAL VEIN.*

BY W. M. SPRIGG, M. D.
OF WASHINGTON, D. C.

J. M., aged 32 years, native of Ireland, coachman, was admitted to the Garfield Memorial Hospital, January 1st, 1886. Twelve days prior to admission he began to have slight headache and loss of appetite with feeling of malaria. Five days before being admitted he had had a chill followed by fever. A physician was not called until three days later when his noon temperature was 102° F., and his tongue was covered with a heavy white coating. A dose of calomel was given and this was followed by six stools. The noon temperature of the next day was 102° F. The following morning he was sent to the hospital with a temperature of 99:7° F., pulse 72, and with the following symptoms: tenderness over right iliac region, slight tympanites and gurgling, and tenderness over spleen. Very restless and talks during sleep. He was put on liquid diet every two hours, quiniae sulph. gr. v and three times a day, with 20 drops of ac. nitro-muriat. dilute, also a fever mixture containing spirits of mindererus and sweet spirits of nitre every four hours.

Jan. 2nd—Very restless and wakeful during the night. Evening temperature 102° F., pulse 102.

Jan. 3rd—Frontal headache; slight delirium, and tongue heavily coated.

Jan. 6th—Tongue covered with muddy, brownish coating. Constipated, gave four grains each of blue mass and pulv. extract of rhubarb.

Jan. 7th—Temperature has assumed a regular typhoid curve.

Jan. 8th—Again suffering from constipation, gave two teaspoonsful of castor oil, which relieved this condition.

Jan. 11th—Progressing favorably though pulse is weak, ordered a tablespoonful of whiskey in milk every three hours.

Jan. 12th—Restless, constipated, repeated castor oil. Evening temperature 102° F. Whiskey every four hours.

Jan. 13th—Headache, restless, muttering delirium; gave Dover's powder, five grains, at bedtime.

Jan. 14th—Evening temperature 103° F.

Jan. 15th—Repeated castor oil, two teaspoonsful.

Jan. 16th—General condition improved. Sweating profusely since last night; ext. bellad. gr. ⅓ at bedtime. This is the twenty-first day since the onset of the disease.

Jan. 17th—During the night had two stools each containing two clots of blood, a third stool at 9 A. M. also containing two clots of blood about the size of small hen's eggs. Was given turpentine ten drops in an emulsion every two hours.

Jan. 18th—Two small bloody stools, condition otherwise unchanged.

Jan. 19th—The 24th day of illness. Slight delirium during night. In the morning the left leg was noticed to be much swollen and very painful to the touch, and within two and a half hours the entire leg, from groin to foot was covered with ecchymotic spots. Skin tense, no pitting on pressure except over the inner surface of tibia. The tenderness was most marked over vein just as it emerges from under Poupart's ligament. Leg wrapped in hot cloths and poultices applied over femoral vein every three hours. Morning temperature 100.4° F., pulse 100; evening temperature 102.2° F., pulse 120, pulse very weak, a tablespoonful of whiskey and four grains of carbonate of ammonia was given every two hours. After the appearance of the ecchymotic spots the pain was much relieved. Continued delirious most of the day. He believed that there was a man in bed with him, and requested he be made to get out, thinking that the swollen leg belonged to the supposed visitor.

Jan. 20th—Rested fairly well during night. No delirium this morning. Leg continues swollen, but tenderness disappearing. Headache. Morning temperature 100.4° F., pulse 116, evening temperature 100.4° F., pulse 120.

*Read before the Clinico-Pathological Society, of Washington, D. C., February 9th, 1889.

Jan. 21st—Ecchymotic spots disappearing. Pulse stronger, whiskey every three hours.

Jan. 22nd—Morning temperature 101.2° F., pulse 96; evening temperature 101° F., pulse 100. The application of hot cloths omitted. Ecchymotic spots have almost entirely disappeared.

Jan. 23rd—Morning temperature 99.6° F., pulse 98; evening temperature 99.8° F., pulse 92. Poultices omitted; whiskey every four hours.

Jan. 24th—Slight diarrhœa for past three days.

Jan. 27th—Morning and evening temperature normal. Thirty-second day of illness.

Feb. 2nd—Omit all medicines. Milk punch three times a day. Diet increased to milk-toast and patient allowed to chew beef, the juice only being swallowed.

Feb. 5th to 9th—Patient out of bed for one hour morning and evening. Leg bandaged.

Feb. 10th—Sitting up all day; his temperature ran up to 99.8° F. in the evening.

Feb. 11th—Leg more swollen; kept in bed to-day. Five watery stools.

Feb. 12th—Leg rubbed with vaseline daily. Returned to liquid diet, and carbonate of ammonia every two hours.

Feb. 13th—Leg only slightly swollen but still kept bandaged. Allowed to sit up a short while each day. Diet increased to more solid but nutritious and easily digested food.

Feb. 26th to March 4th—Improving slowly. Omit carb. ammonia, and gave five grains of iodide of potash three times daily after meals.

March 16th—Increase iodide of potash to ten grains three times a day.

March 20th—Leg rubbed with vaseline and then bathed in hot water; leg bandaged and patient allowed to sit up all day.

April 2nd—Applied a silk elastic stocking to leg from foot to groin, and discharged from the hospital, just ninety-two days after the onset of fever, and sixty-eight days after development of thrombosis.

There was a marked improvement in the general condition of the patient on the twenty-first day of the fever, although the action of the heart was weak. Hemorrhage of the bowels occurred on the twenty-second and twenty-third days, and on the twenty-fourth day thrombosis took place accompanied by delirium. The bowels were unusually constipated and while so the patient was more restless. There was an absence of rose spots. Among the predisposing causes of thrombosis in typhoid fever are: 1st, feeble action of the heart. 2nd, impoverished condition of the blood with a diminution of the red corpuscles, and an increase of the white. 3rd, the absorbtion of septic matter from the intestinal ulceration. Among the exciting causes may be mentioned 1st, malnutrition of the endothelium lining the vessels; 2nd, degeneration of the white corpuscles, and liberation of a ferment and fibrinoplastine.

Thrombosis may occur in the heart, arteries, capillaries and veins; most commonly in the last.

As it is the increased amount of fibrin in the blood which produces this condition, it might prove of interest to see what this change is. Fibrin is formed in the presence of a ferment, by the union of fibrinogen and fibrinoplastine. Fibrinogen exists in the liquor sanguinis; the ferment and the fibrinoplastine in the white corpuscles. Destruction of the white corpuscles and liberation of the ferment and fibrinoplastine are necessary for coagulation.

The experiments of Gaspard and Henry Lee show that the injection of septic matter into living blood is a sufficient cause to produce thrombosis.

The blood is constantly being invaded by waste products of nutrition, the quantity varying of course at different times, and when the different organs of the body are performing their normal amount of work, excrementitious matter is eliminated, and only a healthy balance remains. But when the blood is impaired by noxious material in the circulation, the first effect of this is upon the blood itself.

In typhoid fever as in other debilitating diseases, the red blood corpuscles are diminished and the white increased

to a greater or less extent. The already depraved blood has poured into it septic matter absorbed from the intestinal ulceration, causing a degeneration of the white blood corpuscles and liberating the ferment and fibrinoplastine; and this in turn acting on the fibrinogen, produces an excess of fibrin and formation of a thrombus, slowness of the venous circulation being favorable to this formation.

In looking over the bibliography of this subject, I find quite a number of cases of phlebitis of the femoral vein reported occurring in typhoid fever, and the thrombosis spoken of as secondary to it. I am inclined to believe that some of these cases of phlebitis were in reality secondary to the thrombosis.

SCARLITINIFORM ERUPTION FOLLOWING THE ADMINISTRATION OF QUININE IN CONFINEMENT.

BY WIRT A. DUVALL, M. D.,
OF BALTIMORE.

Considering the rare occurrence of eruptions following the use of quinine, it is proposed to recite the facts of a case that came under my observation.

I was called to attend in confinement Mrs. A., æt. 31 years, a native of Baltimore county, brown hair, fair skin, hazel eyes, and of general good health. This was her seventh labor and in the previous six she had experienced no unpleasant complications.

After having completed delivery, as is my custom in such cases, I ordered the following:

℞.

Quiniae Sulphat.	℈j.
Acid. Sulphuric. dilut.	gtt. vj.
Syr. Limonis,	℥ ij.
Sig.	M.

℥ ss twice daily.

My reason for so doing may be explained by the following quotation, "an ounce of prevention is worth a pound of cure."

It was on the third day that the chain of symptoms to which I will call attention, began. The right cheek was very much flushed, and upon investigation found it to be of a burning character. The temperature was found to be 99°F.

Careful investigation revealed nothing further. The next day the flush had extended to both cheeks, and later in the day a scarlitiniform eruption made its appearance, over the face and neck, extending the next day to the inner side of the left; then to right wrists. The itching and burning attending the eruptions was intense. The evening of the fifth day I consulted Professor Tiffany and at his suggestion discontinued the use of the drug. The following day I saw Dr. Neale, who thought it well to order an active saline cathartic, which I did with a good result.

Twenty-four hours after I had stopped the quinine, a change for the better was noticeable, even to the nurse. The rash was followed by a swelling very like that which follows a bee sting. Desquamation followed, beginning on the seventh day and at this time (the twelfth day) has not been completed.

There was no fever at any time of the case. The pulse did not go over 95.

The interesting part of the case is that Mrs. A. was born and raised in a malarial district, and has several times taken quinine *without* bad results.

There seems to be little literature on this subject and as far as I can learn, it is the first case of the kind reported in our city.

Dr. E. G. Hunt (*Lancet*, Dec. 22d, 1888, p. 1267) reports a case that came under his observation, which was very similar to that of the writer's. Dr. G. T. Elliott in the *Journal of Cutaneous and Genito-Urinary Diseases* (Sept. '88, p. 326) gives an interesting account of a case that he saw. Dr. J. M. French in the *Surgical Reporter* (Sept. 8th, 1888), speaks of the eruptions following the use of quinine. Van Harlingen in his work on skin diseases recites some very interesting points.

Prince A. Morrow in the *New York Medical Journal* (March '88, p. 244),

gives a very similar account of the eruptions that sometimes follows the use of quinine.

Sidney Ringer in his work speaks of a case in which desquamation always followed.

Dr. Edes, of Washington, late professor at Harvard University, in speaking of quinine, calls attention to the fact that eruptions of one sort or another may follow.

Dr. I. E. Atkinson also gives an account of medicinal eruptions in the MARYLAND MEDICAL JOURNAL (Feb. 1st., '81), mentioning quinine among several others.

Correspondence.

HIGHER MEDICAL EDUCATION IN BALTIMORE.

Editor Maryland Medical Journal:

A noticeable stimulus has been given to this question among us by the excellent address of Dr. R. H. Lewis, of North Carolina, and more recently by Professor Osler's stirring oration before the Medical and Chirurgical Faculty. I earnestly hope it will not die out with a mere temporary ebullition of sentiment. It is certain that we cannot longer ignore its importance or remain indifferent to the growing conviction of its paramount interest, both within and without the profession. No one, I think, will seriously venture to claim that the limited instruction given to students of medicine in this city is satisfactory or sufficient, and it is to be feared that the attitude of teachers in our various schools is guided not by the best interests of the students, the profession or public, but by motives of self-interest. Now, all the signs point to an inevitable change in our present methods and one not far distant. Shall we, then, rise above the narrow motives of self-interest and aid in the beneficial reform, or shall we meet it with indifference or opposition? Shall we take part in doing that which the briefest consideration will convince us is a duty, or shall we be forced with a halter around our necks to fall unwillingly into line? Could a joint action be secured upon the part of the schools, no doubt most of the difficulty of action would be obviated. With a view to eliciting the opinion upon this step, several members of the different faculties have been approached, and they have expressed themselves as in favor of co-operation, and have agreed to bring the matter to the attention of their colleges, with a view, if approved, to having representatives appointed to a meeting of conference of the faculties. It is earnestly hoped that the action proposed will be unanimous. The discussion of the subject will bind no one, and may be productive of great good. The subjects to be discussed cannot be announced in advanced, but we may venture to say that they will be in the order of their importance about as follows: (1) A three-year course, (2) graded studies, (3) preliminary examination. An immediate introduction of these reforms is not essential to success. If the Faculties could only be induced to announce that at a certain date, say two years hence (1891), the improved methods would be enforced, we would have made a positive advance, and our prospects would be vastly improved.

A MEMBER OF ONE OF THE FACULTIES.

BALTIMORE, Apr. 30, 1889.

Society Reports.

BALTIMORE ACADEMY OF MEDICINE.

STATED MEETING HELD APRIL 16TH, 1889.

The President DR. H. M. WILSON, in the Chair.

Dr. B. B. Browne reported a case of

REMOVAL OF TUBES AND OVARIES FOR FIBROID OF THE UTERUS.

The patient had a large fibroid tumor of the uterus, which was irregular in shape and as large as a child's head. She had profuse metrorrhagia and much pelvic pain extending to the left side and limb. Various remedies had been used, but he had not employed electricity

although her former physician had used it and she said her experience with it was not pleasant. The only thing to do was to remove the ovaries. In looking at them, there is nothing especially interesting about them except that the left ovary is much larger than the right and the tubes are congested. The operation was done a week ago and the patient is now doing well, the temperature not rising above 99½° F. In reply to Dr. H. M. Wilson, he said that he could not recall at present the statistics of this operation. The removal of the ovaries with a fibroid condition of the uterus is much more difficult than with salpingitis, for in the former case the ovaries are fixed down and are difficult to find. The removal of the ovaries is much safer than removal of the uterus.

Dr. W. C. Van Bibber recalled two cases, not in his practice, in which both women preferred operation to longer suffering.

Dr. H. M. Wilson has now under his care a young woman æt. 24, who has had no menses for one year and has exquisite sensations over both ovaries. He thinks an operation will be necessary.

Dr. B. B. Browne in conclusion said that this operation had been much criticized, because it was supposed to produce sterility afterwards. In a paper read before the Clinical Society the writer (see MARYLAND MEDICAL JOURNAL) said that the woman thus operated on is not made sterile, for she is sterile already. The operation cannot be blamed for a condition which already existed.

Dr. W. C. Van Bibber then read a paper entitled

PROPHYLAXIS OF YELLOW FEVER,

describing his method of quarantine.

Dr. Miles and *Dr. Chisolm* did not agree with Dr. Van Bibber in regard to cleanliness. They thought that if the yellow fever were kept out of a place, it would not occur there, let the town be ever so unclean.

Dr. Van Bibber does not think that yellow fever ever becomes epidemic in a clean place.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

Ninety-first Annual Session held at the Hall of the Faculty, Baltimore, April, 23, 24, 25, 26 and 27, 1889,

DR. JOHN MORRIS, PRESIDENT, IN THE CHAIR. DRS. G. L. TANEYHILL, ROBERT T. WILSON AND WILLIAM B. CANFIELD, SECRETARIES.

(Specially reported for the MARYLAND MEDICAL JOURNAL.)

TUESDAY, APRIL 23D.—FIRST DAY.

The ninety-first annual session of the Medical and Chirurgical Faculty of Maryland, was called to order at the Hall of the Faculty, corner St. Paul and Saratoga Streets, April 23d, at 12.30 o'clock, P. M. The President Dr. John Morris, in the chair. After reading the minutes of last meeting by the Secretary, Dr. John Morris delivered

THE PRESIDENT'S ADDRESS.

on the subject of

THE PHYSIOLOGY AND PATHOGENESIS OF CRIME: HOW FAR CAN MEDICAL MEN AID IN ITS PREVENTION.

(see page 501.)

At the conclusion the speaker was loudly applauded, a vote of thanks was passed and his address was requested for publication.

Dr. J. T. Smith,

CORRESPONDING SECRETARY,

reported that he had done all his work.

THE TREASURER,

Dr. W. F. A. Kemp, reported a deficiency reduced from $243, 69 last year to $94,91. The disbursements last year were $1,985,67, to which, if added last year's deficit, make a total of $2,229,16.

The receipts from dues of members, were $1,374; from the committee on liquidation $145; from the pharmaceutical exhibit $615,25; making a total of $2,134,25.

Dr. I. E. Atkinson, of the

EXECUTIVE COMMITTEE,

reported a satisfactory condition of things for the faculty.

Dr. B. B. Browne, of the

LIBRARY COMMITTEE.

reported that there were 6,474 volumes in the library; 3,713 pamphlets and 77 journals had been received and put on the table, and 132 books had been bound. The fund received by the committee was $649,64, and expenses $640,98. The register received $153,07, and expended $101,67, leaving a balance of $51,40, which was given to the library committee.

Dr. G. L. Taneyhill, of the

PUBLICATION COMMITTEE.

reported that all the business had been properly done. The exchange list has increased. The total cost of printing 500 copies of the President's address and other papers was $371,81.

Dr. Aaron Friedenwald, of the

MEMOIR COMMITTEE.

read a sketch of Dr. John S. Lynch, who died September 27, 1888, and Dr. E. F. Cordell, a sketch of Dr. Wm. E. A. Aiken, who died May 31, 1888. He was married twice and had fourteen children by each wife. Dr. Ferdinand E. Chatard died October 18, 1888. He preserved the record of over 5,000 obstetrical cases in his practice. Dr. Andrew P. Clark died of heart disease July 16, 1888. Dr. Henry Rolando died of typhoid fever October 4, 1888, in his twenty-eighth year. He was the grandson of the late Dr. John Buckler.

The following are delegates to the faculty meeting: Drs. George Thomas, Samuel T. Roman and J. Haines McCullough, Cecil County Medical Society; H. A. Tomlinson, Lycoming County, Pennsylvania Medical Society; H. B. Gwynn, Baltimore Medical Society; W. S. Gairdner, H. E. Knipp and George Thomas, of the Clinical Society of Maryland.

The resignations of Drs. A. B. Arnold, R. M. Matthews and J. T. Spicknall were received. The faculty, after deciding to meet daily for four days, from noon to 4 P. M., adjourned

WEDNESDAY, APRIL 24TH.—SECOND DAY.

THE ANNUAL ORATION

was then delivered by Professor William Osler, F. R. C. L., of Johns Hopkins University Hospital on

THE LICENSE TO PRACTISE WITH ESPECIAL REFERENCE TO STATE BOARDS.

(to appear later)

SECTION ON SURGERY.

DR. RANDOLPH WINSLOW, CHAIRMAN.

The chairman called attention to the subject of

SURGERY OF THE CENTRAL NERVOUS SYSTEM.

and dwelt first on the importance of understanding thoroughly the general and topical anatomy of the brain and then referred to the important results obtained by experiments on animals, by clinical observations, post-mortem examinations and by electrical stimulation of the exposed human brain during the performance of surgical operations. The cortex and base are most assessible and amenable to surgical procedures. Tumors of the brain are of more frequent occurrence than general practitioners think. W. Hale White and Victor Horsley have done the best work here. Cranio-cerebral topography is a new and very important study, and has been mainly used in the surgical treatment of epilepsy, brain abscesses etc. The study of

SURGERY OF THE SPINAL CORD

is of more recent date. Few cases have been reported.

In the same section, *Dr. Oscar J. Coskery* reported a case of

TREPHINING FOR CEREBRAL ABSCESS

with the result of removing the pus, and giving motion to a paralyzed arm and leg, but the patient eventually died.

Dr. John G. Jay then reported

A CASE OF ENTIRE EXSECTION OF THE ULNA WITH RESECTION OF THE HUMERUS AND RADIUS.

in a woman 49 years old. Complete anchylosis did not occur and the elbow remained movable to the extent of several inches and thumb and two fingers could be used. The operation was fully justified by the excellent results.

SECTION ON PRACTICE OF MEDICNE.

DR. WILLIAM B. CANFIELD, CHAIRMAN.

Dr. Canfield took up the following subjects:

I. THE RELATION OF DUSTY OCCUPATIONS TO PULMONARY PHTHISIS.

He began by saying that the pulmonary diseases caused by the different kinds of dust had received a variety of names according to the kind of dust inhaled, but collectively they were all covered by the name "pneumonoconiois." Ever since Koch's discovery of the tubercle bacillus and the gradually improved classification of lung diseases, there seemed to be doubt whether these dust diseases were tuberculous or not. The dust inhaled by miners in badly ventilated mines gradually overcame the action of the ciliated epithelium and penetrated to the alveoli of the lung whence they found their way into the subepithelial layer where unless rendered harmless or devoured by the greedy phagocytes, they set up a fibroid condition of the lung. Most writers agree that the fibroid condition is a barrier to the growth and multiplication of the bacillus.

He then related the case of a miner who had a fibrosis of the lungs and in whose sputa bacilli were always found at every examination and yet this man improved, and is now well. His conclusions from this case were:

1. Patient had no previous history of, or predisposition to, tuberculosis.
2. He contracted a disease with which tuberculocis is supposed to be very rarely found.
3. He had tubercle bacilli in abundance in his sputa.
4. He is now entirely well.

II. THE PRESENT ASPECT OF THE QUESTION AS TO THE ETIOLOGY OF PNEUMONIA.

Pnemonia results from something more than "catching cold." Sailors lead an exposed life and rarely have it. A large number of investigators have been looking for the specific organism. Talamon did some excellent work. Friedländer's pneumonococcus was accepted for a time, but the investigations of Fränkel and Weichselbaum have shown Friedländer's organism to be only an accidental accompaniment of pneumonia. Good work has been done by Gamaléia, Sternberg, Lipari and others. He referred to the theory of phagocytosis in connection with this subject and related his own experience in the bacteriological study of the organism. He then took up

III. THE MORE RECENT TREATMENT OF PULMONARY PHTHISIS,

and spoke of the failure of Bergeon's method. Treatment has been carried out by

1. Internal administration of Drugs or Medicines.
2. Intrapulmonary Injections.
3. Inhalations.
4. Climate.

and cures occasionally occurred

5. Spontaneously.

1. The principal remedies recommended of late were creasote, tannin, calomel, and morrhuol. He had used creasote with some success.

2. Intrapulmonary Injections had been discarded.

3. Inhalations had no lasting influence on the lung tissue, creasote, hydrofluoric acid and hot air had all been used. Weigert claims to get some good effects from the latter.

4. Climate in early cases well selected is the best treatment. Many observers, particularly foreigners, gauge the improvement or the reverse, by the dimunition or increase of bacilli found. This hardly seems to be the proper test. Patients often do well when their sputum is laden with bacilli. Cures may result

5. Spontaneously as Vibert has shown in his statistics gathered from the Paris Morgue. In 131 persons between 20 and 55, all of whom died violent or sudden deaths in 17 or 68 per cent. evidence of cured consumption were found in the lungs. These facts should be borne in mind by those reporting cures from the use of new remedies.

THURSDAY, APRIL 25TH.—THIRD DAY.

SECTION ON OBSTETRICS AND GYNECOLOGY.

DR. T. A. ASHBY, CHAIRMAN.

The chairman remarked first on the growing tendency to abandon empirical methods and to employ more rational views of pathology and treatment. The study of abdominal surgery claims attention, exploratory laparatomy is the only correct means to use in some cases, laparatomy for pelvic abscess is a subject gradually gaining upon the professional mind. Primary laparatomy in tubal pregnancy, has been brought into conspicuous prominence of late, but the greatest interest had been aroused in the use of

ELECTRICITY IN GYNECOLOGY.

He then discussed the various diseases for which electricity had been used, and then showed how much had been accomplished by it in a short time.

Dr. L. E. Neale then exhibited

A NEW OBSTETRICAL FORCEPS,

which was a modification of Howard's modification of Tarnier's. He called it "Neale's Forceps." He claims superiority on the ground that it is all hard metal and can be made thoroughly aseptic, has Simpson lock, blades are narrowing, preventing rupture of perineum. It is made by Willms, of Baltimore. Price $20.

DISCUSSIONS.

Dr. P. C. Williams praised it very highly. In using it as ordinary forceps he thought there was not force enough at the handle to manage it. It had many advantages which made it a superior instrument to the others.

SECTION ON MATERIA MEDICA AND CHEMISTRY.

DR. T. BARTON BRUNE, CHAIRMAN,

read a paper on

SUGAR TESTING WITH SPECIAL REFERENCE TO ALCAPTONURIA,

in which he reviewed the various substances giving a sugar reaction and the danger of trusting too much to one test alone.

In the same section *Dr. W. B. Platt* took up the subject of

SURGICAL THERAPEUTICS.

in which he considered all curative non-mechanical agencies employed in surgical cases, whether after accident, operation or for surgical diseases. These he classified as anaesthetics, antisyphilitics and antiseptics. In the first class he discussed protoxide of nitrogen, chloride of methyl and cocaine. Under antisyphilitics were mentioned mercury by inunction, hypodermic injections and gray oil. The antiseptics were carbolic acid, creolin, and iodoform.

Dr. Whitfield Winsey then read a paper on

HYPNOTICS AND ANTIPYRETICS.

In the former class he reviewed what is now known of sulfonal, and drew the following conclusions;

1. It is a true hypnotic.
2. It is easy of administration being without taste or odor.
3. It is safe, prompt and efficient with no objectionable after effects.
4. No sulfonal habit contracted.

Under antipyretics, he went over very thoroughly the literature of antipyrin antifebrin and phenacetin.

Dr. H. Salzer read a very exhaustive paper on

LAVAGE

and gave the indications for its use in adults and children and his experience with it.

In the

DISCUSSION

which followed, the remarks were confined to glycosuria and the sugar tests. *Dr. A. K. Bond* thought the testing for sugar was not so simple a matter as it appeared. He thought the phenylhydrazin chloride test was the most satisfactory, but agreed with Dr. Brune that no one test should be used alone.

Dr. Geo. J. Preston thought it was important to know whether the amount of sugar increased or decreased.

Dr. Wm. B. Canfield thought no test was reliable. He had succeeded with other tests where the phenylhydrazin chloride test had failed. He thought the use of the microscope was an objection to this test, as probably two-thirds of the medical graduates of the United States did not know how to use a microscope.

Dr. J. C. Hemmeter was surprised that the saccharimeter had not been mentioned. Salkowsky and Leube proved that it showed the presence of one-tenth of one per cent.

Dr. T. B. Brune in closing said he regretted to bring such a long discussion before the society. The phenylhydrazin chloride test had not been long enough before the medical public to judge of it yet some other substance as carbohydrates may reduce these crystals.

SECTION ON SANITARY SCIENCE.

Dr. W. C. Van Bibber read a report on the subject of

QUARANTINE.

in which he discussed the Maryland Health and Quarantine Establishment and referred particularly to yellow fever.

(*to be continued.*)

THE CLINICO-PATHOLOGICAL SOCIETY OF WASHINGTON, D.C.

REGULAR MEETING HELD FEB. 19TH, 1889.

Dr. H. L. E. Johnson, President, in the chair.

Dr. W. M. Sprigg read a paper entitled,

A CASE OF TYPHOID FEVER WITH THROMBOSIS OF THE FEMORAL VEIN.

(See page 1.)

Dr. W. W. L. Cissel in opening the discussion, said that debilitating diseases like typhoid fever, &c., have all the predisposing causes of thrombosis, *e. g.*, slowing of circulation, destruction of blood corpuscles, due to septic infection and high temperature. He spoke of the various views about causes of coagulation; some think the thrombosis due in some cases to local changes in the blood vessels; also spoke of the various physiological experiments going to prove that the blood corpuscles have nothing to do with it.

Dr. G. R. L. Cole said he believed it due to anatomical obstruction in the veins rather than to blood changes. He has had three cases; in one case there was an enlarged inguinal gland pressing on the vein at the saphenous opening. The flaccid condition of the muscles also

prevents the blood from properly circulating.

Dr. Crockett asked Dr. Cole which leg was affected in his cases?

Dr. G. R. L. Cole answered two in the left leg, one the right.

Dr. Crockett added that it was a fact that the left leg was more frequently affected, possibly due to pressure of the iliac artery on the vein occasioned by the relative anatomical position. Hence he thought that elevation of left leg a preventive measure.

Dr. W. W. L. Cissel said in closing the causes mentioned by Drs. Cole and Crockett are predisposing but not exciting causes.

HENRY B. DEALE, Sec'ty.

POTATOES AS A SUBSTITUTE FOR LAPAROTOMY.—At a meeting of the Imperial Society of Physicians in Vienna, Dr. Salzer reported a communication from Dr. Cameron, of Glasgow, upon the "potato cure" first recommended by the Scotch observer.

Dr. Cameron has used this plan of treatment in several cases of ingestion of large foreign bodies with gratifying success. Salzer has also had an opportunity to try the potato cure in the case of a boy who had swallowed a brass weight of twenty grammes. Potatoes were fed to the child, cooked in a variety of manners, so as to encourage his appetite. He took them willingly. After five days the brass weight was compelled to retreat, overwhelmed by the constant accessions of reinforcements from above, and passed out leaving the potatoes in possession of the field.

In the same manner he treated the ingestion of a set of artificial teeth, while in another case a scarf pin proved no match for its farinaceous antagonist. Dr. Salzer believes that this form of treatment will subserve a useful purpose in many cases in which, up to now, gastrotomy appeared to be the only form of relief available. He also advised the members to place no trust in sauer kraut, which has been recommended for the same purpose.

Dr. Hochenegg related the case of a boy who had swallowed a nail 6 ctm. long, in 1884, and had been treated by gastrotomy. He had swallowed a similar nail two years later, when the potatoe cure had proved successful.

Dr. Billroth spoke of the difficulty which exists in the removal of foreign bodies by laparotomy, and was strongly in favor of the potato cure.—*Internat. Journal of Surgery.*

THE USE OF ANODYNES.—To the eye of prejudice every attempt to escape from pain appears to be sinful. The employment of anæsthetics during parturition has been occasionally denounced from the pulpit upon scriptural grounds, although it may be doubted whether a similar line of argument has ever induced a cleric to refuse the offer of "gas" made to him by a dentist. The lengths to which prejudice can go when backed by ignorance are well illustrated in the case of "exalgine," the new anodyne introduced by Dujardin-Beaumetz, and Bardet. Our readers may remember that our Paris correspondent recently sent us an account of this drug, from which it appeared that it was a methyl derivative of acetanilide, and that it was possessed of remarkable analgesic properties, particularly valuable in cases of neuralgia. Already this new drug has fallen under the ban of detractors in the lay press. It has been asserted that exalgine is merely a new name for morphine, chosen for euphemistic purposes. According to another view, it will "probably be a cunning combination of all other noxious concoctions," and will play an important part as a popular substitute for ether, hashish, opium, and similar medicaments in the treatment of "feverish languor, lassitude, and lowness of spirits." In view of such random assumptions it may be worth mentioning once more that its chemical composition is expressed by the name orthomethyl-acetanilide, while Dujardin-Beaumetz and Bardet at present only lay stress upon its antineuralgic properties, without claiming for exalgine the position of a popular panacea, deliriant or narcotic.—*Lancet.*

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BALTIMORE, MAY 4, 1889.

Editorial.

MEDICAL AND CHIRURGICAL FACULTY.—Already a week has passed since the 91st session of the Faculty has closed, and many will look back with pleasure and satisfaction at the work done. Of the nine sections each containing five members, the chairman of each one with no exception made a report and in some sections three and even four papers were read. From the nine sections, representing forty-five members, nineteen papers were presented and these together with the five volunteer papers make a total of twenty-four papers which with the discussions and addresses will make a very readable volume of transactions. It is a great satisfaction to most members that they can now print their contributions prior to the publication of the transactions. In this way a report of the progress of work done in any section up to date of reading, may appear soon after in print, while before it appears in the bound volume of the transactions it is, in some respects, out of date.

The report of the committee on new members was exceedingly practical and to the point and great credit is due the chairman who probably alone worked out and wrote the report. From next year on the annual dues will be for city members $5, and for out of town members $2, and although so few days have passed since its acceptance by the members several of the younger and more active members of the profession have expressed a desire to join the Faculty next year. The proposition to meet semi-annually in other towns in the State would be an excellent idea and should meet with approval. We have cities like Cumberland, Frederick, Westminster, Hagerstown, and others on the Eastern Shore which are quite large enough to give us a very respectable membership and attendance.

The Faculty had a very able and popular president who has for many years taken an active interest in its proceedings, and is, as he said, the only surviving member who obtained admission by examination.

In getting the best possible work out of the Faculty it is of the utmost importance to put on the sections not figure heads but active workers. As soon as a member of a section does no work either through his section by active co-operation or by an individual paper, he should by no means be re-appointed. The sections also should be reinforced from those who read volunteer papers. The best papers are generally volunteer papers and the writers of those should always be put on the appropriate section for the following year. This the president should always observe as a rule. Thus by a tacit understanding, a member desiring to work on a section may read a volunteer paper and thus earn his appointment to a section covering his subject. This will bring out the best work. It should be the endeavor of each president to make up sections of men congenial and harmonious. Good men have been known to refuse work on a section when their colleagues were not congenial.

HIGHER MEDICAL EDUCATION.—The letter in our columns of this issue shows that at least one physician and that one a member of one of the faculties has not

listened with apathy to the recent addresses on higher medical education. Men who have always taken a pride in their medical schools are now beginning to look with some degree of shame and sorrow at the want of progress shown by their alma mater. Some of the schools are almost too young to have a history, but a careful study of even the catalogues of the older schools will show that even the "unsurpassed advantages and opportunities for study at the bedside and in the laboratories (?)" have increased but little if at all in the past few years. Our correspondent wisely says that only concert of action of all will accomplish anything. The three subjects most necessary to raise the standard in this city are a three year's course of graded studies, and preliminary examinations. In the three year's course, the amount formerly crowded into two years would be more carefully studied, didactic lectures would be fewer, clinical lectures and demonstrations would be more frequent and a limited amount of laboratory instuction would not be out place. In order to accomplish this it has been proposed to have a conference of those from the faculties of all the medical schools in the city. The plan is excellent and both those in favor and opposed to higher medical education would have an opportunity to give their opinions. Meanwhile it is hoped that all taking even the slightest interest in the subject will express their views and the correspondent column is open for all suitable letters (signed or unsigned) in favor or against this plan.

Gonorrhœa Cured by the Use of Thalline.—Thalline is a synthetic alkaloid with properties intermediate between kairine and antipyrin. In the *Dublin Journal of Medical Science*, March, '89, Dr. McCaw relates a case in which a rapid cure of acute gonorrhœa was wrought by the application of bougies of thalline sulphate. The patient came for treatment four days after connection. He had an abundant yellowish green discharge from the urethra with severe pain during micturition and great tenderness all along the urethra. The night before he applied he had to rise five times to pass water. Having had gonorrhœa seven years before for two months he looked forward with anxiety to a disagreeable course of copaiba drinking. Dr. McCaw treated him by the introduction of bougies containing sulphate of thallin, 5 per cent. Having made the patient micturate, he passed the bougie up to the ring, and had the patient hold the meatus tight so that the medicament could not escape as it melted. After he had lain on his back 20 minutes, the spring was withdrawn, and the meatus was closed with cotton wool. The presence of the bougie caused pain, which ceased after withdrawal, the patient feeling comfortable. The patient introduced a bougie every evening, and on the third day stated that he was cured, as he had no discharge and no pain on micturition. Being on his feet at work all the following day and neglecting to use the bougie, he perceived a slight return of his symptoms on the next morning, but after using two bougies he was again cured, and for a week or more had had no second relapse although busily at work each day.

Reviews, Books and Pamphlets.

A Practical Treatise on the Errors of Refraction and their Correction with Glasses. By C. Francis Valk, M.D. Lecturer on the Diseases of the Eye at the New York Post-Graduate School and Hospital. Price, Cloth, $3.00. Pp. 241. G. P. Putnam's Sons, Publishers, New York.

A few weeks ago we received a circular announcing the publication of the above work. A few clauses in the announcement at once attracted attention: "This work * * commends itself to the general practitioner and the *optician*." "The subject of the proper correction of all the errors of refraction is meeting with considerable attention by the profession, for the many *reflex* symptoms that seem to be dependent upon the faulty construction of the eye." "The subject has been treated in a manner

different and more simple than in the usual text books now issued, and will therefore be of service to the general practitioner, and the *optician*, who is constantly called upon to examine these cases." The diagrams are spoken of as "making the subject so clear that with reasonable study *any one may correct these errors with positive certainty.*" In the preface of the book we are told that "the methods of testing and prescribing glasses, as herein described, are so simple that they can be readily understood even by one who is not familiar with the science of ophthalmology; and are so written that they will be of service in the hands of the general practitioner." When we examine the book itself, we do not find a word about the "reflexes" promised (at least by inference) in the announcement. The book is written entirely from an *optical* standpoint. In the chapters on hypertropia and astigmatism, no hint is given the general practitioner that persistent headaches or neuralgia may be dependent upon these forms of ametropia, and may be their most prominent symptom. Nor indeed are even the *eye* symptoms of ametropia described. The term "asthenopia" is used, but nothing is said about the blurring of print, lachrymation, obstinate conjunctival irritation or blepharitis, which are often entirely dependent upon an error of refraction. The *medical* aspect of the subject is totally neglected. If one desired to study the errors of refraction for themselves, he would do very well by commencing with Dr. Valk's book. If, however, the general practitioner should read it with a view of finding out what the reflex troubles of ametropia were, he would get only such help as is given in a few of the "Illustrative Cases."

As to the propriety of advertising that a book, written by a medical man, has, as its special merit, such simplicity of expression as will enable *opticians*, without any medical knowledge, to correct all forms of ametropia, opinions may differ. Two of the leading firms of opticians in our own city never give cylindrical glasses on their own examination. Every oculist knows that an ophthalmoscopic examination often compels him to modify his prescription. It is not an uncommon thing to see patients wearing, on the order of an optician, strong convex glasses to correct an asthenopia altogether dependent upon astigmatism which is difficult of detection. *Concave* glasses are sometimes put on young hypemotropes in whom there exists an apparent myopia, caused by ciliary spasm. We saw such a case only a few days ago. Myopes, with diminished acuteness of vision, are often given powerful concave glasses which do them positive harm. And yet the diagnosis of such cases is often only possible by the ophthalmoscope, and intelligent treatment can only be given by one who understands something about eye pathology. How many of our opticians know how to use the former, or understand anything about the latter it is useless to speculate. It seems to us that the injustice done the eye-specialist, the patient and even the optician by allowing the latter to think that he can *safely* correct all the errors of refraction, when it is reasonably certain that he knows nothing about the means upon which oculists rely to avoid mistakes, is too manifest to need remark. The quotations made from the publishers' announcement are apt to give him such assurance.

The plates in the book are good, and the explanations clear. As a rule, the methods of treatment are judicious. A notable exception, in our opinion, is the treatment of myopia of 3 or 4 dioptrys by the use of glasses of this strength *all the time.* The extra strain on the accommodation in near work should only be allowed under certain conditions, none of which are discussed. The dangers which threaten a myope *with diminished acutenss of vision*, are too great to be so completely neglected as they are. Some inaccuracies occur which are surprising. On page 7 we are told that the optic nerve "spreads out" * * *forming the retina.*" Again on page 16, "the retina is a *continuation of the optic nerve.*" No mention is made of the branch of the third nerve which

supplies the levator palpebræ superioris. On page 40 the Metre is said to "exactly equal 39.5 *Paris* inches." What is meant is 39.37 *English* inches.

A Manual of Diseases of the Ear, for the Use of Students and Practitioners of Medicine. By ALBERT H. BUCK, M. D., Clinical Professor of the Diseases of the Ear, in the College of Physicians and Surgeons, New York. Consulting Aural Surgeon, New York Eye and Ear Infirmary. 420 pages. Illustrated. Price, extra muslin, $2.50. New York: William Wood & Co.

This book is fully up to the usual high standard of Dr. Buck's writings. Illustrative cases are given in each chapter. We notice several departures from the "orthodox" treatment. The curette is preferred to the syringe in the removal of the common plugs. Furuncles of the external canal are not to be opened till pus forms. In the mean time pain is to be allayed by hot poultices covering the entire ear (5 to 6 inches square). The Valsalvian method of inflating the middle ear is (justly we think) condemned as a "therapeutical measure." Dr. Buck does not think much of the combination of this method and the so-called "diagnostic tube" as a means of testing the permeability of the Eustachians. It is the *tube* part of the combination in which he has little faith. Stress is laid upon the treatment of the naso-pharynx in middle ear troubles. The practice of injecting fluids into the middle ear is condemned as useless and sometimes dangerous. Vapors do not sensibly shorten the duration of an acute catarrh. The artificial leech is thought highly of in the early stages of acute suppurative otitis media. No mention is made of the operative treatment of Dr. Samuel Sexton for chronic dry aural catarrh for obstinate suppurations. The plates are in many instances taken from Politzer's work and they are generally good.

Diseases and Injuries of the Ear. Their Prevention and Cure. By C. H. BURNETT, A. M., M. D., Aural Surgeon to the Presbyterian Hospital, etc., Philadelphia. J. B. Lippincott Co., Philadelphia. 1889 Pp. 154. Price $1.

This little book appears in the series of "Practical Lessons in Nursing." Dr. Burnett tells in a very clear way as much as is necessary about the structure of the ear. He also lays stress on what nurses ought *not* to do in taking care of the ear; a very important thing. The book is a valuable addition to the series.

The Insane in Foreign Countries. An Examination of European Methods of Caring for the Insane. By the HON. WM. P. LETCHWORTH, President of the New York State Board of Charities. Octavo, cloth, with twenty-one Plates, $3.00.

To the physicians and managers connected with institutions for the insane, and to all interested in the care and welfare of the mentally diseased, this book will prove particularly serviceable and instructive. The introductory chapter comprises a brief historical survey of the treatment of the insane in various countries from the earliest times to the present day. Then follow chapters devoted to the lunacy systems of England, Scotland, and Ireland, and to representative institutions of these and Continental countries, and a chapter each is given to the remarkable insane colony of Gheel and to the noted asylum at Alt-Scherbitz, near Leipzig, which latter illustrates the combined excellencies of a colony and a hospital. The final and longest chapter, and the most important portion of the volume, presents a *résumé* of the author's observations and his conclusions drawn from them. Based upon the results of his inspections of foreign and American asylums and of his own ripe experience in the supervision of the defective classes of New York State, Mr. Letchworth offers his views as regards the selection of sites and locations of asylums, the kind of buildings to be provided, the questions of sewage disposals, water supply, protection against fire, the laying out of the grounds, the furnishing and decoration of wards and rooms, the difficult

problem of the disposition of the acute, the chronic, and the criminal insane, the practice of restraint and the amount of liberty that may be granted, the character of the attendants to be chosen, the religious exercises, amusements, employments, dress and clothing, visitation and correspondence of patients, *post-mortem* examinations, the question of voluntary admission, the methods of admission and discharge, and the value of summer resorts. All of these subjects are treated clearly and explicitly. Besides these, the author gives his personal views respecting the insane in poorhouses, local or district care of the insane; state care, the boarding-out system, state supervision, and kindred topics.

The book is beautifully printed and richly illustrated with engravings and heliotype reproductions of plans of buildings and asylum interiors and pictures of historical interest.

Medicine in the Middle Ages. Extracts from "Le Moyen Age Médical" of Dr. Edmond Dupouy. Translated by T. C. Minor, M. D. Reprinted from the Cincinnati Lancet-Clinic, December 1, 1888 to February 6, 1889. Cincinnati; Cincinnati Lancet Press Co. 1889. Pp. 99.

This a series of articles which have appeared during the past year in the *Cincinnati Lancet-Clinic.* It deals with the four subjects of physicians, the great epidemics, the demono mania and medicine in the literature of the Middle Ages. The translation is very smooth.

Physiological Notes on Primary Education and the Study of Language. By Mary Putnam Jacobi, M. D., New York. G. P. Putnam's Sons. 1889.

The writer of this little book is evidently dealing with a subject both fond and familiar. The first part is called "An Experiment in Primary Education" in which she records the education of a child (her own) according to her own ideas, which are substantially that children should not all be taught in the same stereotyped plan and compelled to fit an inflexible school plan and standard, when no two children are alike. The education should be acquired in a manner natural and studies should follow each other as the child grows, not according to a fixed rule, but as the natural instinct of a growing intelligent being would suggest. The chapter on "a plan for the study of language," is exceedingly interesting. The whole book shows much thought.

Suggestive Tharapeutics: A Treatise on the Nature and Use of Hypnotism. By H. Bernheim, Professor of the Faculty of Medicine at Nancy. Translated from the second and revised edition by Christian A. Herter, of New York. G. P. Putnam's Sons, 1889. Price $3.50.

This is a clear exposition of the subject of hypnotism and suggestive therapeutics by one who has long been acknowledged as the leader at the Nancy School. It is impossible to give due credit to such a book in a few lines. The translation has apparently been made by one not only familiar with the two languages, but also with the subject.

Materia Medica and Therapeutics for Physicians and Students. By John B. Biddle, Late Professor of Materia Medica and General Therapeutics in the Jefferson Medical College, Philadelphia. 11th Edition; Revised and Enlarged by Clement Biddle, M. D.. U, S. N., and Henry Morris, M. D., Fellow of the College of Physicians of Philadelphia, &c. With numerous Illustrations. Philadelphia: P. Blakiston Son & Co. 1889. Pp. 607. Price $4.25.

This edition is much larger than former ones and the more recent drugs are introduced. It is especially useful for students.

Psychology as a Natural Science, Applied to the Solution of Occult Psychic Phonomena. By C. G. Raue, M.D. Philadelphia: Porter and Coates. 1889. Pp. 451. Price $3.50.

This embraces the consideration of the following subjects: Mind Reading,

Thought Transference, Hypnotism, Somnambulism, Statuvolism, Clairvoyance, Second Sight, Retrospection, Psychometery, Telepathy, Telergy, The Double, Apparitions, Phantasms of the Living and Dead, and Spiritualistic Phenomena, etc., and is intensely interesting and instructive.

Pulmonary Tuberculosis, its Etiology, Symptomatology and Therapeutics. By Prof. H. von Ziemssen, Director of the Medical Clinic at Munich. Translated by David J. Doherty, A. M., M. D., Instructor in the Chicago Policlinic. 1888: Geo. S. Davis, Detroit, Mich. Pp. 119. Price 25 cents.

This is a very interesting little monograph, but adds little to our knowledge of consumption. It is, however, up to latest date.

Wood's Medical and Surgical Monographs Vol. II, No. 1. Contents: "On Diabetes and its Connection with Heart Disease," by Jacques Mayer, M. D. "Blenorrhœa of the Sexual Organs and its Complications," by Ernst Finger, M. D. New York: Wm. Wood & Co. April, 1889. Vol. II, No. 2. Contents: "On the Preventive Treatment of Calculous Disease and the Use of Solvent Remedies," by Sir Henry Thompson, F. R. C. S., M. D. "Sprains, their Consequences and Treatment," by C. W. Monsell Moullin, M. A., M. D. New York: William Wood & Co. May, 1889.

These two volumes contain four articles much superior to those in the last number of Vol. I. The article on diabetes is not very startling in revelations. A disease does not usually fix itself on one organ to the exclusion of all the rest. The heart must be affected to some extent in diabetes as in nephritis. The article on sprains is very timely. So few physicians understand what to do and what not to do in a case of sprain.

The Diagnosis and Treatment of Extra-Uterine Pregnancy. By John Strahan, M. D., M. Ch., M. A. O. (Royal Univ. of Ireland), Jenk's Prize Essay of the College of Physicians, Philadelphia. Philadeldhia: P. Blakiston, Son & Co. 1889. Pp. 134. Price $1.50.

The Questions of Relationship between Lichen Planus (Wilson) and Lichen Ruber (Hebra). By A. R. Robinson, M. B., L. R. C. P., and S. Edin, etc. Reprint from Journal of Cutaneous and Genito-Urinary Diseases.

Pathologie und Therapie der Alopecia Areata. Von A. R. Robinson, etc., Sonder-Abdruck aus "Monatshefte für Praktische Dermatologie" VII. Band, 1888.

Views on the Prevention of Typhoid Fever. By S. S. Burt. Reprint.

The Influence Which the Discovery of Cocaine has Exerted Upon Ophthalmic Surgery. By S. Theobald, M. D., being reprint of Report of Section on Ophthalmology, Otology and Laryngology from Medical and Chirurgical Faculty of Maryland.

Naso-Pharyngeal Fibromata. By E. F. Ingals, A.M., M.D. Reprint.

Stomach Washing in Infants. By A. Seibert, M.D. Reprint.

Success and Failure of Electrolysis in Urethral Stricture, Especially Dr. Keyes' Method Reviewed. By R. Newman, M.D. Reprint.

The Immediate Application of Forceps to the After-coming Head in Cases of Version with Partial Dilatation of the Cervix. By H. C. Coe, M.D., M.R.C.S. New York. Reprint.

Repression of Menstruation as a Curative Agent in Gynecology. By E. C. Gehrung, M.D. St. Louis. Reprint.

Intubation in Chronic Stenosis of the Larynx, with a Report of Five Cases. By Joseph O'Dwyer, M.D. Reprint. 1888.

Intubation of the Larynx in Diphtheritic Croup. Analysis of Two Hundred Cases Operated Upon. By DILLON BROWN, M.D. Reprint. 1889.

Osteotomy for Anterior Curves of the Leg. By DEFORREST WILLARD, M.D.

Resection of Gangrenous Intestine Occurring in Strangulated Hernia, with the Report of a Successful Case. By A. J. MCCOSH, M.D., Attending Surgeon to the Presbyterian Hospital, New York. Reprint.

Diet in Febrile Diseases. By H. SALZER, M. D., Baltimore. Reprint.

Some Results in the Treatment of Atrophic Rhinitis with the Galvanic Current. By J. H. HARTMAN, M. D., Baltimore. Reprint.

Notes on a Case of Nasal Caries Complicated with Meningitis, Successfully Treated by means of the Surgical Drill. By W. C. JARVIS, M. D. New York. Reprint.

The Question of Interfering with the Abscesses of Hip Disease. By A. B. JUDSON, M. D., New York. Reprint.

Ninth Annual Report of the Illinois State Board of Health.

Preliminary Report to the Illinois State Board of Health. Water Supplies of Illinois and the Pollution of its Streams. By JOHN H. RAUCH, M. D., Secretary, with two appendices: I.—Chemical Investigations of the Water Supplies of Illinois. By Prof. J. H. LONG. II.—The Illinois River Basin in Its Relations to Sanitary Engineering. By L. E. COOLEY, C. E. Springfield, Ill. 1889.

Annual Report of the Health Department of Baltimore.

Report of the Consuls of the U. S. for January and February, 1889.

Scribner's Monthly for May, 1889.

Miscellany.

ADDISON'S DISEASE.—At a recent meeting of the Montpellier Academy of Science (*Gaz. Hebd. des Sci. Méd.* No. 11), M. Baumel related two cases of Addison's disease. The first, observed in 1880, was that of a man thirty-six years of age, who had spinal curvature. and in whom the bronzing consisted in an increase of the normal cutaneous pigmentation. The second, observed in 1888, was that of a woman sixty-five years old, who exhibited marked bronzing all over the trunk, but the face, hands, and feet were exempt. In the first case, there was considerable enlargement of the suprarenal capsules and numerous foci of caseation. In the second, the capsules were atrophied and in a state of fatty degeneration, which occurred in other of the abdominal viscera. The change in the capsules was especially marked in one of the two zones of pigmented cells separating the medullary from the cortical substance, and a cavity formed here by the degeneration was the seat of a hæmorrhagic effusion. M. Baumel expressed his belief in a chromatic nervous apparatus, and in the function of the adrenals being to supply the material for pigment, in the form of the chemical body discovered by Vulpian. This substance, which reddens in contact with air and blackens with the persalts of iron, would, after contributing perhaps to the formation of hæmoglobin, go to form a pigment in the cellular elements. In connection with this subject, it may be added that at the meeting of the Paris Academy of Medicine on the 26th ult. M. Cornil read the report of a committee, consisting of MM. Jaccond, Constantin Paul, and himself, on a case of Addison's disease with lesions of the posterior spinal nerve roots, communicated to the Academy by MM. Kalindero and Babes. Those observers found in this case a chronic sclerosis of the cord mainly confined to the vicinity of these nerve roots, with a neuritis extending specially along the latter, the lesions being most marked in the lower dorsal region. The committee reported that no general conclusion could be drawn

from a single fact, but considered this observation to meet the desideratum expressed by M. Jaccoud in his Dictionary—viz., that hitherto no anatomical lesion characteristic of Addison's disease had been found.—*Lancet.*

The Use of Alcohol in Bond by Scientific Institutions.—It may not be generally known that the internal revenue tax on alcohol is remitted under certain restrictions to various institutions of learning. The section of the Revised Statutes of the United States authorizing this remission, reads as follows: "The Secretary of the Treasury may grant permits to any incorporated or chartered scientific institution or college of learning to withdraw alcohol in specified quantities from bond without payment of the internal revenue tax on the same, or on the spirits from which the alcohol has been distilled, for the sole purpose of preserving specimens of anatomy, physiology, or natural history belonging to such institution, or for use in its chemical laboratory. Also to any scientific university or college of learning created and constituted such by any State or Territory under its laws, though not incorporated or chartered:" In reply to a letter of inquiry from the Superintendent of Roosevelt Hospital, the acting Secretary of the Treasury defines the use to which free alcohol may be put, in adition to the preservation of specimens, as follows: "1. In the manufacture in your chemical laboratory of tinctures, liniments, and other pharmaceutical preparations for use in the hospital wards and in the out-patient department. 2. As a lotion for bathing the afflicted parts of the patients under treatment in the hospital and out-patient department. 3. As an antiseptic wash by the surgeons before and after operations in both departments. 4. As an antiseptic solution for cleansing surgical instruments. 5. As an antiseptic solution for preparing and preserving catgut ligatures, to be used in surgical operations. 6. For burning in spirit-lamps, principally in the analysis of urine." It is distinctly provided, however, that the alcohol and the preparations mentioned shall be used only in the manner described, and shall never be sold to any person inside or outside the hospital,—*N. Y. Med. Record.*

Counter Prescriber Arrested.—A druggist of this city, some months ago, says the *Southern Clinic* under took to treat a case of gonorrhœa. Following the use of the medicine which he furnished, the patient had a severe attack of epididymitis; so severe, indeed, as to require him to go to the hospital for treatment. On leaving the hospital he consulted an attorney, and the result has been not only that suit has been instituted for damages, but the druggist has been arrested, and bound over to appear before the grand jury, on the criminal charge of practising without a diploma. This is hardly as bad as the man on Holiday street in this city, who treated a case for two weeks after it was broken out with what he called "the pock," then a doctor was called in and found a case of smallpox.—*Denver Medical Times.*

Chinese Medicine.—The medical art in China is mysterious and empirical, says a writer in *Chamber's Journal.* The medical profession is regulated by rules almost the opposite of those which prevail in England. In China the doctor receives a fixed salary as long as his patient is in good health. If the patient falls ill the doctor's pay is stopped until a cure is effected.

In England a sick person usually tries to assist the doctor by explaining the symptoms of his case. In China this would be considered an insult to the doctor. The doctor may feel the patient's pulse, examine the skin, and look at his tongue; but he may ask no questions. He is then expected to diagnose the disease from which the sick man is failing and to prescribe a remedy. The medicine prescribed is usually very cheap and very nasty; but some drugs are high-priced, and there are certain precious stones which are believed to be of wonderful efficacy in curing diseases. One of these expensive prescriptions consists of very costly ingredients,

White and red coral, rubies or jacinth, pearls, emeralds, musk, with one or two earths in special qualities, are crushed into powder, rolled into pills with gum and rose water, and coated with gold leaf. This unique medicine is reported to be an infallible cure for small-pox, measles, scarlet fever, and all diseases which arise from blood poisoning and break out in cutaneous eruptions. The strengthening properties of the preparation are said to be quite remarkable. The Jesuits, who flourished in China in the early part of the present imperial dynasty, affirm that they have seen men snatched from the last convulsions of death by its judicious use.—*Boston Med. and Surg. Journal.*

Morbid Changes in Diabetes.—Dr. P. Ferraro, who has made several researches on the subject of the changes produced in the different organs of the body by diabetes, has recently published the results of similar investigations in a fresh case, the eighth of the series. The arteries were affected with chronic endarteritis; in the lungs there were morbid changes not due to bacilli; in the stomach and intestines the mucous membrane was atrophied; the pancreas was transformed into a firm, compact mass of a fibrous or cicatrical character; in the parenchyma of the liver and in the spleen pulp there were also signs of atrophy. Here, therefore, as in the other cases examined, the digestive organs were most of them affected to a greater or less extent, while the nervous system was not apparently the subject of any morbid changes. Dr. Ferraro considers the exhaustive study of the morbid histological changes in diabetes very important, and believes that we shall not arrive at any definite conclusion as to the etiology of this disease until our knowledge of the conditions under which sugar is formed and distributed in the body in a state of health is very much further advanced than it is at present.—*Lancet.*

Is Syphilis Ever Cured?—"Syphilis is never cured." Such is the positive dictum of Dr. W. R. Gowers in his recent lecture on "Cerebral Syphilis." Dr. Gowers should come to the United States and learn some of the methods in vogue here; for certainly many cases of syphilis in this country get well. "Syphilis," says one well-known American writer, "is one of the most readily managed and promising of all diseases that affect the human race." Says another writer: "In a large proportion of cases, syphilis will run its course and leave the patient in a healthy condition, even though no special treatment is instituted." Still a third American syphilographer says: "By far the largest majority of cases will pass through the trouble easily and happily to a complete cure." It would appear that either American syphilis is a specially benign article, or the English physician writes from very narrow experience in this affection.—*Med. Record.*

Transmission of Pneumonia in Pregnancy.—Dr. Netter lately brought to the notice of the Société de Biologie a case confirming the possibility of the transmission of an infectious malady from the mother to the fœtus in utero. A woman pregnant seven months and a half was admitted into the Hôpital Beaujon for pneumonia of the apex of the right lung. The disease evolved regularly, and on the seventh day defervescence was produced. Two days after the fall of the body temperature, the patient was delivered of a child that lived five days. At the necropsy there was found distinct pneumonia of the right upper lobe accompanying fibrinous pleurisy pericarditis, suppurating cerebro-spinal meningitis, and otitis. Bacteriological examination demonstrated the presence pneumococci in the lung and in the blood. It was therefore concluded that this pneumonia was clearly hereditary, and not acquired, and that it had been transmitted by the mother to the fœtus. Moreover, Dr. Netter demonstrated by experimental proof this pneumonic transmission. A guinea pig, while pregnant, was inoculated with a culture of pneumococci; these micro-organisms were found in the fœtus.—*Lancet.*

Medical Items.

Professor Nothnagel has been granted the title of Hofrath (Court Counsellor).

A Congress of Physiologists will be held at Bâle, beginning on Tuesday, September 10th, 1889.

A new pun at the Paris Jockey Club: "Le malade prend l'avis du docteur et le docteur prend la vie du malade!"

Mr. Henry C. Gibson has given $2500 toward establishing a Chair in the Department of Hygiene of the University of Pennsylvania.

The St. Louis Poyclinic, the organ of the St. Louis Poyclinic a monthly jonrnal has made its appearance.

The Seventh Annual Commencement of the Woman's Medical College of Baltimore, was held last Wednesday.

The Medical College of the State of South Carolina proposes to elect a Professor of General Pathology and Practice of Medicine about the middle of next month.

The American Association for the Advancement of Science meets at Toronto, Canada, August 27, and will remain in session until September 3, inclusive.

Dr. Bernays, of St. Louis, was paid $500 by that city for successful laparotomy on a policeman who was shot through the stomach, duodenum, and jejunum.

An International Congress on Otology and Laryngology will be held in Paris at the Trocadero Palace from the 16th to the 21st of September next.

The Iowa State Medical Society will meet this year at Keokuk, on May 15th, and will continue in session three days. President, Donald Macrae, M. D.; Secretary S. S. Lytle, M. D.

The Fortieth Annual Meeting of the Medical Society of the State of Pennsylvania, will be held in Pittsburgh, on Tuesday, Wednesday, Thursday and Friday, June 4th, 5th, 6th and 7th, 1889, commencing on Tuesday, June 4th.

According to the "British Medical Journal," official statistics show that there are only 118 homœopathists in Austria out of the whole number of medical men, 7,183, and that only 44 of those profess to practise hemœopathy exclusively. There are none at all in the Italian districts, and but 19 in Vienna. They are said, too, to be decreasing in number.

It is announced that Mr. John G. Borden, a winter resident of Florida, has offered a prize of $1,000 to the city within that State that shall be found in the most cleanly condition on the 1st of July. From the reports received the cities in that region are not in a clean condition and no steps are taken to make them so. It is to be hoped that the judges of cleanliness will come from clean cities and absolute not relative or comparative cleanliness will be the basis of awarding the prize.

A Building for Physicians' Offices is to be built at Minneapolis. The building is to be eight stories, and cost $200,000. It is stated, incorrectly, that New York has two such structures. On the contrary, New York has none, and probably never will.

The *Electrican* reports a rumor from Berlin to the effect that a means has been discovered of using electricity for ascertaining the true north, instead of the magnetic needle; that in short, the new means will be superior to the compass and its likely to supersede it.

The French courts have decided that a physician cannot legally sell his practice, on the ground that a medical practice is not an article of commerce. A contract to abstain from practising in any given neighborhood is, however, valid, and to be capable of enforcement at law.

The next annual meeting of this Association will be held in Boston, June 24th and 25th, 1889, just prior to the meeting of the American Medical Association at Newport. Dr. V. Y. Bowditch, of Boston, President. An interesting series of papers have been secured and the meeting promises to be a very successful one.

The Twenty-Second Annual Meeting of the Canadian Medical Association will be held at Banff, N. W. .T, on the 12th, 13th, and 14th of August next. In addition to the members of the Canadian Medical Association a cordial invitation is extended to all members of the regular profession in good standing in the Dominion of Canada, the United States and Great Britain.

The third obstetric clinic at the Vienna Hospital, the director of which is Dr. G. Braun, has had to be closed on account of the occurrence of an epidemic of puerperal fever. This is believed to be due, not to any wanf of antiseptic precautions, but to the unsatisfactory hygienic condition of the building, which is old, and in which there have been repeated epidemics of puerperal fever.

The three-hundredth anniversary of the invention of the microscope will be celebrated by the Executive Committee of the International Exhibition of Geographical, Commercial, and Industrial Botany at Antwerp in 1890. A retrospective exhibition will be got together from all available quarters, illustrating the history of the miscroscope, as well as an exhibition of the modern instruments of existing makers. A variety of conferences relating to technical and scientific questions connected with the microscope will be arranged. Already great interest is being expressed in the proposed exhibition.

Original Articles

THE PLANS AND PURPOSES OF THE JOHNS HOPKINS HOSPITAL.

BY JOHN S. BILLINGS, M. D.,
SURGEON, U. S. ARMY.

[Address delivered at the opening of the Hospital, May 7, 1889.]

The third paragraph of the letter of instructions communicated by Johns Hopkins to the Trustees whom he had chosen to carry out his plans for a Hospital in the City of Baltimore, states that. "It is my wish that the plan * * * shall provide for a hospital which shall, in structure and arrangement, compare favorably with any other institution of like character, in this country or in Europe." What do you suppose the writer was thinking of when he penned that sentence? Had he in view any definite ideal, any mental picture of the institution which he proposed to establish, or was it merely an expression of a desire to give to his city the best thing that could be devised? I have read that letter many times, have heard much of the ideas, hopes, and wishes which were expressed in the numerous conversations which preceded its preparation, and it seems to me that the writer had an ideal and not a mere vague desire, an ideal which was no doubt somewhat misty, but which did not correspond to any existing hospital, and one which he did not attempt to define except in a few prominent points to which I shall presently refer. In most respects, Johns Hopkins took the same course with his Hospital which he did with his University, and deliberately refused to trammel with specific directions, those whom he had chosen to carry out his plans, but this letter of instructions indicates nevertheless, a conception of much more definite character, and one which had been the subject of more discussion and reflection than his scheme for a University.

Whether this be so or not, I am at all events sure that his trustees have endeavored to comply with this letter of instructions, and to do so in the broadest and best sense of the words.

The beginning of the results we have before us to-day; results which even now are not confined to these particular aggregations of brick and mortar, as will be presently explained, and the end of which will be, as we hope and believe, to make life happier for millions now living, and yet unborn. Only those who took part in the early deliberations of those charged with this trust can fairly realize the anxieties, the doubts, the manifold perplexities which at first attended their decisions and movements. Only one or two of them had any knowledge of hospital matters, most of them were business men, bankers, lawyers, judges, railway managers, men who knew something of the management of men and money, but who were now brought face to face with a new problem, viz., how to build, organize, and manage a hospital so that it should compare favorably with any other hospital in this country or in Europe. To "compare favorably with." What does that mean? It is a peculiar phrase, which, coming from a shrewd business man and a member of the society of Friends, signifies, I think, to excel if possible; at all events that is the safest interpretation. And it was not this or that hospital which was to be surpassed or equaled, but all other hospitals in this country or in Europe, Africa, Asia and Australia being put out of the question.

It was a large contract. The location was fixed, that had been done by Johns Hopkins, but they had to decide whether the structures to be erected should be temporary or permanent, of wood, brick or marble, in one large building or many, and many other like points before even the preparation of plans could be commenced.

They followed the instructions of the donor and got advice, of which a great abundance was available. They visited the large hospitals of our eastern cities, employed five men supposed to be skilled in hospitals each to write an essay giving his plans and suggestions, published those essays in a book which had a wide

circulation, and studied the criticisms and reviews to which this book gave rise. Having duly considered the multifarious and widely divergent suggestions thus obtained, they finally selected one of the essay writers and asked him if he was satisfied with his own plans now that he had seen the others and the published criticisms upon them. He promptly said that he was not, whereupon they asked him to try again and do better. He set to work, aided by the architect of the Board, and the result was a set of sketch plans which he took abroad and obtained much counsel and criticism on, examining at the same time the model hospitals of Europe. He was much less satisfied with the sketch plans when he came back than he was when he started, and again the building committee, the architect and himself revised the whole matter and finally settled on the general arrangement, which you will see today.

Many details remained to be worked out, even the façades had not yet been designed, but the general scheme was settled, and the rest was comparatively easy for the time being.

Let us now for a few moments consider the broad general principles which governed the Trustees in the adoption of this plan.

The first hospitals were established to give shelter and food to the sick poor, especially those who gathered in cities. Gradually, physicians found that they could learn much in the aggregations of suffering and that they afforded the means of teaching others, but this last use of them is only about two hundred years old. Gradually, also, it came to be known, that the knowledge thus obtained in the care of the sick poor was of use in treating the diseases of the well to do, and finally, within the last twenty-five years or so, people are beginning to find out that when they are afflicted with certain forms of disease or injury, they can be better treated in a properly appointed hospital than they can be in their own homes, no matter how costly or luxurious these may be. In the hospital they can have not only all the comforts of home, but more, not only skilled medical attendance and skilled nursing, but the use of many appliances and arrangements specially devised for the comfort and welfare of the sick which can hardly be found in any private house, and also freedom from noise and many petty annoyances, including in some cases too much sympathy, and in others too little. This Hospital then is to provide for the rich as well as for the poor, for those who can and ought to pay for the help given, as well as for those who cannot.

A second cardinal principle to be observed in such a hospital as this, is, that it shall do as little harm as possible. A hospital may do harm by its foul air, by spreading contagious disease among its inmates, by neglect or carelessness of its nurses or attendants, and in years gone by, hospitals have no doubt caused nearly as much sickness as they have relieved. This is now rarely the case, and in this Hospital, the arrangements for ventilation, isolation, and nursing are such as to entirely do away with this danger. There is another danger connected with free hospitals and dispensaries which is of quite a different kind, and to which I can here only allude, namely, the danger of promoting negligence, shiftlessness, laziness and vice, by offering free relief from their consequences, the danger of pauperizing people. This is a danger connected with organization and management, rather than with construction, and I can only say here, that it has been foreseen and will be, as far as possible, guarded against.

The third principle to be kept in view in such a hospital as this, is, that it should provide the means of giving medical instruction, for the sake of the sick in the institution as well as of those out of it. It is well known to those familiar with the subject that the sick in a hospital where medical instruction is given, receive more constant, careful, and thoughtful attention than do those in a hospital where no such instruction is given. The clinical teacher must do his best, keen eyes will note every error in diagnosis, every failure in results of treatment.

Moreover the very act of teaching clarifies and crystallizes his own knowledge; in attempting to explain, the dark places become prominent and demand investigation, and hence it is that those cases which are lectured on, receive the best treatment. I need say nothing here on the other side of the question, the value of properly trained physicians to the community, and the necessity for hospital instruction in such training; Johns Hopkins understood all this and especially directed that "in all your arrangements in relation to this Hospital you will bear constantly in mind that it is my wish and purpose that the institution shall ultimately form a part of the Medical School of the University."

Now there are medical schools, and medical schools, and in obeying this direction of the donor, the Trustees had to consider what sort of a medical school this School of the University was likely to be. As the majority of the Trustees were also Trustees of the University, they knew well the principles which underlie the organization of that Institution, and that the same principles would govern the organization of the medical department when that came to be taken in hand.

One of these principles is the thorough teaching of that which is known, another is to increase that which is known and to furnish the men and means for doing this. So also the Hospital should not only teach the best methods now known of caring for the sick, but aim to increase knowledge, and thus benefit the whole world by its diffusion.

Another point which had to be kept in view was the direction of Mr. Hopkins that there should be established, or in connection with the Hospital, a training school for female nurses, not only to care for the sick in the Hospital, but to benefit the whole community by supplying it with a class of trained and experienced nurses.

It is also highly desirable that a hospital of this kind should have connected with it a well appointed dispensary for the treatment of those who need medical aid, but not a bed in the hospital. Through such a dispensary much good can be done at small cost, the selection of proper patients for the Hospital is facilitated, the means of medical investigation and teaching are greatly extended, and the scope of the nursing system can be made to reach the poor and ignorant in their own homes.

The last point to which I shall refer which was kept in view by the Trustees in deciding upon the plans, was the general appearance of the buildings and grounds. Mr. Hopkins gave no specific directions as to the buildings but he directed that the grounds should be properly enclosed with iron railings, and so laid out and planted as to be a solace to the sick and an ornament to the city, and it was evident that the buildings should be of the same character so far as their purpose would admit. It was therefore decided that, while no utility should be sacrificed for the sake of architectural ornament, and the main purposes which I referred to should be fully worked out in the plans before any attention was paid to external appearances, it was fit and proper that the buildings should form an ornament to the city and a suitable monument to the donor.

Bearing in mind then these main principles, to provide for the proper care of the sick both rich and poor, to provide for the highest class of medical education, to increase and diffuse knowledge, to provide trained nurses for both Hospital and City, to provide a Dispensary, and to make the buildings and grounds ornamental and attractive; let us see how the problem has been thus far worked out.

I will begin with the arrangements for securing an article of prime necessity in a hospital, viz., pure air. Air supply and ventilation in this climate are inseparably connected with heating for a considerable portion of the year, for comfortable warmth must be secured, and on the means of doing this must largely depend the methods of ventilation and their success. The temperature of Baltimore may vary from 103° F. in the shade to 17° F. below zero, hence its perfect hospital must be one which would answer for the tropics or

for northern Russia. To secure this, double walls with air spaces were given to the buildings and a system of heating by the circulation of hot water was adopted for the wards. This system consists of central boilers from which flow and return pipes extend beneath every building connected with heating and coils, of which there is one for every two beds in the ward above. The temperature in these coils can be exactly regulated to any temperature between 150° F. and the temperature of the external air, by simply regulating the velocity of the flow of the water by the valves attached to each coil, and thus it is quite possible to give one pair of beds a temperature of 70° F. and another pair in the same room at a little distance a temperature of 60° F. to suit the needs of different cases. The 80,000 gallons of water contained in this heating apparatus go round and round, carrying heat from the furnaces to the wards, but every building has its own independent means of ventilation, and it is not possible to go from one ward into another without going into the open air on the way, so that foul air, if any forms, cannot spread from one building to another. Nevertheless, the buildings are so connected by corridors and underground tunnels that in passing from one to another there is no exposure to rain or snow, and the least possible to cold air, while the food is not exposed at all. This is not the place to describe the ventilation, I will only call your attention to the fact that the temperature of the incoming air by any bed is easily changed by turning a valve while the quantity of air is not changed, to the arrangement for taking foul air from either the bottom or top of the ward, or from both, and to the fact that all this has been thoroughly tested during two winters and found to give the results hoped for. One of the peculiarities of the wards is, that all the service rooms are collected at the north end, leaving the south end free of obstruction and fully exposed to the sun—the end of the ward being a large bay window looking out on the central garden, and with a floor which can be warmed, so that the patients able to sit there can be thoroughly comfortable. Another peculiarity of the sick wards is the arrangements for easy cleaning and to prevent possible accumulations of dust in corners and crevices. Corners are to a great extent done away with and easy curves given in their place, even at the junction of the floor and walls there is a curve instead of the usual right angle, and I advise you to look at it and see how it has been produced, for it ought to become fashionable, and take the place of the old mop board in all well constructed houses. So also the doors have not the usual moulding about the panels, giving recesses which it is almost impossible to clean. One of the wards is especially arranged for cases which may be either contagious or offensive. In this building each patient is in a room by himself and all these rooms open into a corridor through which the wind is always blowing There are many details about this isolating ward which are worth looking at, but which I have not time now to refer to, and I must omit details about the pay ward, the octagon ward, and the peculiar fittings and conveniences of the kitchen, laundry, apothecaries building and so forth, for the same reason.

Let us now pass to the second object of the Hospital, the giving means for higher medical education, and see what has been done for that. In the first place, there is a large amphitheatre with appended rooms for the reception of accidents and emergencies of all kinds. In the second place, provision is made for at least thirty students to reside constantly in the Hospital and devote themselves under proper guidance to the study of disease and the practical care of the sick. It is intended that these places shall be open only to those who have had a thorough previous training, and who have shown themselves to be fitted to undertake this important part of their studies. As a rule, not more than five per cent. of medical graduates have had any opportunities worth mentioning, to study and treat disease in the living man when they receive their diplomas.

They have to get this experience on their first patients, and sometimes the

experience is rather hard,—for both doctor and patient. This Hospital has provided for the class of the medical school in the last year of their studies, good rooms with bath rooms, a dining room and other conveniences, and here they can be taught the actual daily work of a physician, for which all their previous studies are only preparatory. Many of the arrangements of the Hospital have been constructed with reference to this instruction; it is a great laboratory for teaching the practical applications of the laws of hygiene to heating, ventilation, house drainage, and other sanitary matters. All pipes and traps are either exposed to view or can be seen by merely opening a door, and in the tunnel beneath the corridor you can study at your leisure the complicated and yet simple arrangement of pipes for gas, steam, water, sewage, etc., which are usually buried and remain a profound mystery to every one except the plumber, and often puzzle even him.

Closely connected with this subject of teaching is that of increasing our knowledge of the causes, symptoms, results and treatment of disease, in fact one cannot be thoroughly and well done without the other, and hence many of the provisions for the one are also useful for the other. For example to go back to our system of heating and ventilation, there are many points connected with it which are destined for experimental work, to compare steam with hot water heating, to determine the velocity of water at different temperatures, to compare ventilation by aspiration with that by propulsion, or by upward currents with those drawn downward. One structure is very largely devoted to and fitted for experimental research, and that is the pathological laboratory where the causes, processes, and results of disease are to be studied.

Upon the results obtained in that laboratory may yet depend the saving of many lives, the relief of unspeakable agony, the warding off of pestilence from the city, and, to put it in a strictly business light, the value of real estate, and the rate of taxation of this community. We are on the verge of great advances in our knowledge of the causes and methods of disease, and I feel sure that these will be only preliminary steps to far greater and better knowledge of how to prevent or to treat them than we now have. The probable length of life of the new-born infant to-day is not much more than one-half what it ought to be, the practical productive period of the life of our men and women is shortened and interrupted by unnecessary disease and suffering, but remember—if these things are to be amended, it is not merely by teaching old doctrines, we must open fresh windows and let in more light so that we can see what these obstacles really are. It is in this work of discovery that it is hoped that this Hospital will join hands with the University, and it is in this hope that some of the structures around you have been planned and provided.

A word now on the fourth object kept in view in this Hospital, viz., a Training School for Nurses. Some of you probably have had some personal experience of the difference between an educated and properly trained female nurse and one of the old-fashioned sort, but if you have not, it would take much more time than I now have to describe it. I can only say that in many cases a competent trained nurse is as important to the success of treatment as a competent doctor, and that one of the greatest difficulties in treating well to do patients in their own homes in this city, is the want of proper nurses. Affection and zeal may do much, but they cannot take the place of knowledge, and this kind of knowledge is not to be acquired in a day or in a month. It is a work best carried out by women, though not one woman in ten is fit for it, or should undertake it. But the woman who is fit for it, who has physical health and strength, sound sense, loving kindness, patience and tact, and who has been thoroughly taught the art of nursing the sick with all its thousand details, has the power of doing good and increasing happiness to a degree which few others possess. In a properly conducted hospital ward, she is a necessity, but her field of usefulness and helpfulness is by no means limited

to that. She is needed outside the hospital, in the home of the rich to nurse and care for the sick, in the home of the poor to teach prevention as well as nursing. To gather here such women, to have them thoroughly instructed, to furnish them with the attractive and comfortable home which they deserve, and to send them where they are most needed, with provision for their return when the work is done, is the object of the Training School of this Hospital. For this purpose the Trustees have provided a large and handsome building, separated from the others, and exclusively appropriated to the female nurses, where each can have her own comfortable room, and where a common parlor, library, dining room, bath rooms, and in short, the arrangements of a first-class hotel are provided for their use. Here also is a training kitchen and a lecture room to aid in the work of instruction. The intention is that when the nurse has finished her six or eight hours tour of duty to the sick, she shall come quite away from the ward and all that pertains to it, and take her rest and recreation in a totally different atmosphere, and especial efforts have been made to have this home attractive and pleasant.

The fifth object which I mentioned as having been kept in view in the plan and construction of these buildings is the Dispensary. This is a large building on the north front, consisting of a large central waiting room surrounded by a number of smaller rooms for the use of the physicians and surgeons who are to examine and prescribe for the patients, and having bath rooms and a small apothecary's establishment for the issue of the medicines ordered. This building is connected with the amphitheatre by a short covered corridor and is especially arranged with reference to teaching. It, as well as the amphitheatre, is heated by steam instead of hot water, partly because they are not in constant use and a rapid means of warming is desired, partly for the purpose already referred to, of giving the means of experimental comparison of the two systems. The means of supply of fresh warm air in these two buildings, and of removing the air made impure by exhalations, are somewhat peculiar and merit examination.

With regard to the architectural design and external appearance of the buildings, and the laying out and ornamentation of the grounds, I can only say that you must see and judge for yourselves as to whether Mr. Hopkins' wish that they should be an ornament to the city, has been successfully complied with. So far as external ornamentation is concerned, it is confined almost entirely to the large buildings on the west, or Broadway, front, which it was felt, should harmonize in style of decoration. These central buildings, consisting of the Administration, with the one pay-ward on either side, are constructed of pressed brick with ornamentation of a dark blue, fine-grained, hard and durable stone, known as Cheat River Stone, and of moulded terra cotta of the color of the brick. The external designs for these, as for all the other buildings, were furnished by Messrs. Cabot and Chandler of Boston, and I think we have good reason to be well satisfied with the results they have produced. The grounds are laid out and planted in accordance with designs furnished by Mr. E. W. Bowditch, of Boston.

As regards construction, I do not hesitate to say that these are the best built buildings of their kind in the world. The material is the best, the most skilled and careful workmen were employed, and, above all, the work received the most careful, conscientious, and intelligent supervision as it progressed. For this supervision we are indebted to Mr. John Marshall in the beginning, and to Mr. William H. Leeke for the remainder and conclusion of the work, and we are also indebted to the latter for many valuable suggestions as to modes and details of finish which are so important in a hospital. The details of the complicated and extended system of heating, ventilation, and plumbing were designed and the work executed by Messrs. Bartlett, Hayward & Co., of this city.

I should like to go on and mention a number of other names of persons who have done good work here, but want of

time forbids. I will only say that these buildings embody the counsels and suggestions of many men and women in this country and abroad, but among them all there is no one who, from the very beginning of the conception of the idea of this magnificent gift in the mind of Johns Hopkins down to this present moment, has had more to do with shaping the results, who has furnished more valuable suggestions, who is more thoroughly acquainted with all that has been done, who has worked more unselfishly, and who more deserves honor in this connection, than the President of the Board and Chairman of the Building Committee through the whole progress of the work, Mr. Francis T. King.

Briefly and incompletely as I have sketched these salient points of the plans and purposes of this Hospital, I hope I have nevertheless shown you that it is intended for other purposes besides providing shelter, food and drugs for the sick. In saying this, I have not the least wish to undervalue or disparage those institutions which do make this their main or only object. There is abundant need of their existence and work also, but this institution should not be judged by the rules which apply to them, it cannot be managed after their fashion, if it does not produce results different from theirs it is a failure, and the expenditure upon it a mistake.

Thus far I have been speaking of the buildings only, and trying to give you some idea of the motives which led to their being as they are, and what they are, and not otherwise. From the beginning, however, it has been recognized that the buildings and machinery are only means to an end, tools which must be handled by skilled workmen to produce the desired result, and throughout all these years of planning and building, the question of organization, and of the sort of men and women who were to use and work with these things has not been lost sight of. It is true that no attempts were made to select and engage individual members of the Hospital Staff until quite recently, but there was, nevertheless, a tolerable definite conception as to the ideas, mode of work, character and wants of those who are to constitute this staff, and when the time came for selection, it was made by this standard.

On the philanthropic, social and religious aspects of this great trust, I do not propose to touch, but I wish to say a very few words of the hopes and wishes of scientific men and physicians with regard to it. From the time of the first announcement of the Hopkins bequests to the present, these men, all over the world, have been keenly interested in the plans and methods adopted in carrying them out. Whenever and wherever the problems of higher medical education have been discussed within the last ten years, there has been speculation as to the probable course of the Johns Hopkins Medical Department, and the influence it would have upon the standard. I may even say that some of this influence has been exerted in advance, has been discounted, as it were, for the plans of this Hospital have stimulated changes in some of our best medical schools, and have been copied with more or less modification in some of our latest hospitals. What is it then that the physicians want? Is it more physicians, more family practitioners, more surgeons, more specialists? Not at all. They know very well that there is no danger that the supply will not be equal to the demand, when they become overburthened with practice they do not at present find it difficult to obtain assistants, they have no fears lest the 70 or 80 medical schools of this country should fail to produce a sufficient number of medical practitioners to meet the wants of our increasing population, and they know well that medical schools of Great Britain and Germany are sending to us quite as much of their product as we can conveniently dispose of. They do hope that the Johns Hopkins Medical School and the Hospital will do two things. The first is, that it will demand of those who propose to become its students, evidence that they have a sound basis of preliminary education before they commence, and that its standard in this respect shall be little below that of the requirements for granting the degree of bachelor of arts in the University. It

is hoped that the men thus selected will go through a carefully graded course of study, including actual work in properly fitted laboratories, and that after this they will be brought into contact with the sick, and thus obtain practical experience of the duties and responsibilities of the practitioners of medicine, before they offer their services as such to the public. So much our physicians desire of every medical school, for the sake of the honor and dignity of the profession, and for the good of the public, and they desire especially that this School shall form an example to which they can point, as showing how medical education should be conducted, and what should be required of the candidate for the degree of Doctor of Medicine.

The very general interest in the combined Hopkins trusts felt by physicians and scientific men, not only of this country but of the whole civilized world, is largely due to the belief that the relations which will here exist and be maintained between the University as a whole and its Medical Department, of which the hospital is to be an important part, will be close and intimate, so that the true University spirit will pervade, stimulate and encourage the hospital work. In this country, medical schools have either had no connection with Universities properly so called, or the connection has been slight and nominal, such as depends upon the formal conferring of medical degrees by the University.

Here, however, through the influence of the Biological Department there are secured common interests and mutual influence, and it is hoped therefore, that the necessary details of technological instruction will be arranged in accordance with, and subordinate to the broad principles of scientific culture upon which the University is organized.

It is because it is believed that this will be the case that there is a widespread hope and expectation that these combined institutions will endeavor to produce investigators as well as practitioners, to give to the world men who can not only sail by the old charts, but who can make new and better ones for the use of others.

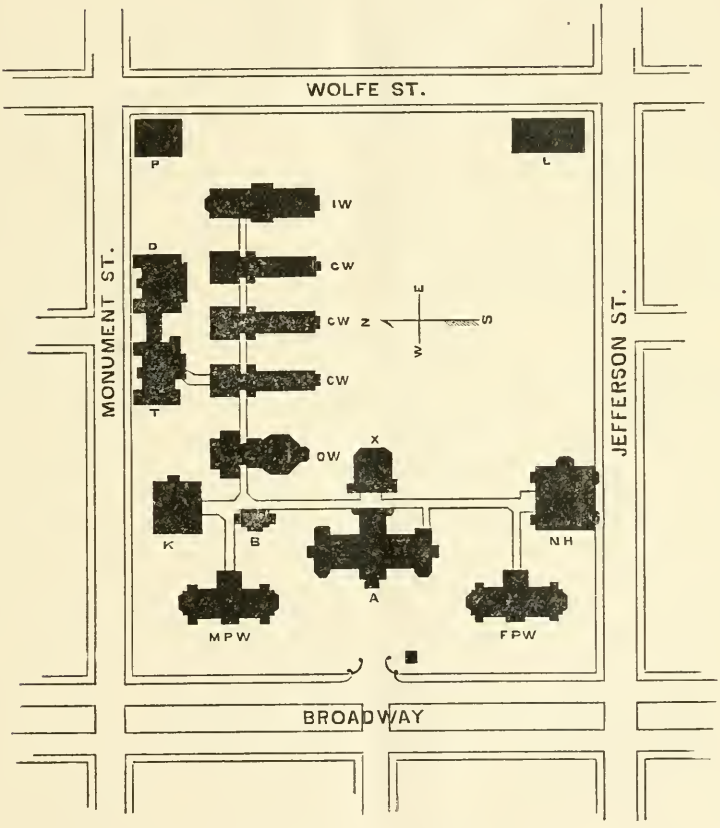
This can only be done when the professors and the teachers are themselves seeking to increase knowledge itself, and hence it is supposed that from this Hospital will issue papers and reports giving accounts of advances in the knowledge, and of new methods of acquiring knowledge obtained in all its wards and laboratories, and that thus all scientific men and all physicians shall share in the benefits of the work actually done within these walls. But however interesting and valuable this work may be in itself, it is of secondary importance to the future of science and medicine and to the world at large, in comparison with the production of trained investigators full of enthusiasm and imbued with the spirit of scientific research, who will spread the influence of such training far and wide.

It is to young men thus fitted for the work that we look for the solution of some of the myriad problems which now confront the biologist and the physician.

Do I seem to ask too much, to be too sanguine as to what human thought and study and skill may accomplish, to forget that there is one event unto all, that the shadow of pain and death comes on the wise man as on the fool? I have two answers. As surely as our improved methods of prevention and treatment, based on the advances in knowledge of the last fifty years have already extended the average duration of life in civilized countries, nearly five years, have prolonged thousands of useful and productive lives and have done away with the indescribable agonies of the pre-anæsthetic period, so surely are we on the verge of still greater advances, especially in the prevention of infectious and contagious disease, in the resources of surgery against deformities, and morbid growths, and in the mitigation of suffering due to causes which cannot be wholly removed. But the second answer is more important, and it is this. It is our duty to try to increase and diffuse knowledge according to the means and opportunities which we have, and not to rest idle because we cannot certainly foresee that we shall reap where we have strewn.

The Johns Hopkins Hospital,

BALTIMORE, MD.



A.—Administration Building.
X.—Apothecary's Building.
M. P. W.—Male Pay Ward.
F. P. W.—Female Pay Ward.
N. H.—Nurses' Home.
K.—Kitchen.
B.—Bath House.
O. W.—Octagon Ward.
C. W.—Common Ward.
I. W.—Isolating Ward.
T.—Amphitheatre.
D.—Dispensary.
P.—Pathological Building
L.—Laundry.

"It is not incumbent on thee to finish the work, but thou must not, therefore, depart from it," says the Talmud, and "Of him to whom much is given much shall be required," says the Scripture.

To you, the officers of this Institution, and to you, men and women of Baltimore, there is now given the opportunity of giving powerful aid in this increase and diffusion of knowledge of the laws of human life, disease, and death. Surely those who are working in the wards and laboratories of the Hospital and University will do their best, surely also the citizens of this great city of a great Nation, which at no distant day will take the lead in scientific work, will encourage, sustain, and sympathize with these workers. I would have this Hospital become famous, not for the fame's sake, but because this will be evidence of the good work which has been done in it; but we must not be impatient.

There are difficulties to be overcome, delays which must be submitted to, we cannot at once have the Medical School, which is essential to the plan which I have sketched, but there is plenty to do for the present, and I am certain that in time all these present obstacles to full development will be happily overcome. Success in this, as in all other enterprises in the world, is to be obtained by unselfish work for the good of others, by wise counsel, by co-operation, and by persistent effort. A hospital is a living organism made up of many different parts having different functions, but all these must be in due proportion and relation to each other and to the environment to produce the desired general results. The stream of life which runs through it is constantly changing, patients, nurses and doctors, come and go, to-day it has to deal with the results of an epidemic, to-morrow with those of an explosion or a fire, the reputation of its physicians or surgeons attracts those suffering from a particular form of disease and as the one changes, so do the others. Its work is never done, its equipment is never complete, it is always in need of new instruments and medicines. it is to try all things, and hold fast to that which it good.

"Et quoniam variant morbi, variabimus artes." It has been said that "hospitals are in some sort the measure of the civilization of a people," but a hospital of this kind should be more than an index, it should be an active force in the community in which it is placed. When the mediæval priest established in each great city in France a *Hôtel Dieu*, a place for God's hospitality, it was in the interests of charity as he understood it, including both the helping of the sick poor and the affording to those who were neither sick nor poor, an opportunity and a stimulus to help their fellow-men; and doubtless the cause of humanity and religion was advanced more by the effect on the givers than on the receivers. It is the old lesson so often expounded, apparently so simple and yet so hard to learn, that true happiness lies in helping others, that it is more blessed to give than to receive.

In some respects we to-day have a much wider outlook than the men of a thousand years ago; this Hospital is designed, as I told you, to advance medical science as well as to give relief to the sick poor, but the fundamental motive is the same, to help others. We have here the beginning of an Institution which shall endure long after the speakers and the audience of to-day shall have finished their life work, and have passed away. Founded in the interest of suffering humanity, intimately connected with a great University, amply provided with what is at present known to be essential to its work, we have every reason to predict for it a long and prosperous career, with steadily progressing improvement in its organization and methods, and enlargement of its activity and influence.

Let us hope that before the last sands have run out from beneath the feet of the years of the nineteenth century it will have become a model of its kind, and that upon the centennial of its anniversary it will be a hospital which shall still compare favorably, not only in structure and arrangement, but also in results achieved with any other institution of like character in existence.

CHARITY AND KNOWLEDGE.

BY DANIEL C. GILMAN.

President of Johns Hopkins University.

[An Address delivered at the opening of Johns Hopkins Hospital, Baltimore, May 7, 1889.]

Thirteen years ago during the centennial celebrations of Independence Day, the University founded by Johns Hopkins began its work, and now, as we commemorate a completed century of constitutional life, the Hospital, gift of the same donor, throws open its doors. These buildings—complete as thought, time and wealth can make them—are henceforth consecrated to the ministry of mercy and the restoration of life. Science and charity, knowledge and pity, skill and sympathy are here installed in the service of mankind.

That large-minded citizen of Maryland, "Who by noble gifts for the advancement of learning and the relief of suffering, has won the gratitude of his city and his country," found two words adequate to his great ideas. "University" and "Hospital" were his chosen terms, and he linked them together by this significant phrase: "Bear constantly in mind that it is my wish and purpose that the Hospital shall ultimately form a part of the Medical School of that University for which I have made ample provision by my will." How brief the phrase, how large the purpose? "Apples of gold in pictures of silver."

Like James Henry Roosevelt of New York, "a man upright in his aim, simple in his life and sublime in his benefaction,"* whose hospital and dispensary give clinical instruction to the College of Physicians and Surgeons; like James Lenox of New York, whose munificence established a public library and gave birth to a hospital, Johns Hopkins, already honored as a patron of learning, will be henceforward remembered in the annals of charity and medicine.

*This phrase, like that referring to Johns Hopkins, is taken from a Memorial tablet.

May we not almost say of him as Pindar said of Theron,

> —and I will swear
> That city none,—tho' she enroll,
> A century past, her radiant scroll,—
> Hath brought a mortal man to light
> Whose hand with larger bounty flows.
> The blessings to that man we owe
> Say who shall hope to count *

We may form an idea of what our hospital is likely to be by the study of a like institution in London. About a century and a half before Johns Hopkins died, the days of Thomas Guy, the founder of Guy's Hospital, were ended. Like our benefactor, he had lived unmarried to the age of eighty years, and from humble beginnings had acquired a fortune, with which he provided for the establishment of a hospital. The amount of his gift was more than a million of dollars (£238,292). The beneficent influences of Guy's hospital are now known in every part of the globe. It is doubtless safe to say that every one of us has shared, indirectly, in its benefits. The name of the great surgeon, Sir Astley Cooper, would alone give renown to the Hospital to which he was attached;—Sir Astley Cooper, of whom it was said that from the period of his appointment to Guy's, until the moment of his latest breath, he was everything and all to the suffering and afflicted; his name was a host; but his presence brought confidence and comfort.‡ Matthew Baillie's influence on modern pathology is well-known. The famous discoveries of one of Cooper's pupils, Thomas Addison, need only an allusion. Hodgkins' disease perpetuates the remembrance of another of the discoverers of Guy's hospital. The name of Richard Bright is celebrated throughout the medical world in connection with an investigation which qualified authorities have pronounced the most important contribution to medical science, made in the first half of the nineteenth century. Nearly fifty volumes of medical reports embody the observations and studies made in Guy's Hospital since 1836. Thousands of

*Olympic, II, Cary's version.

‡Letter of Dr. Roots, Memoir, 315

medical students have been trained within its walls; "their presence," says a competent observer, "has made the Hospital." Hundreds of thousands of patients have received relief from the treatment there afforded. In a single year, five thousand in-door patients have been cared for, and more than thirty thousand out-door patients have sought advice.

But we are planning for a future much longer than a century and a half; for a future as long as the past of St. Bartholomew's or St. Thomas's, which now, after many centuries, are more useful than ever.

By a curious coincidence, as I had reached this point in the preparation of my address, I received a volume from the Warden of St. Bartholomew's Hospital in London,*—bearing an inscription in his well-known hand, so welcome and so apposite that I will read it. "To the library of the newest of Hospitals this account of the progress of medicine in one of the most ancient, is given by Norman Moore, with the earnest hope that the Johns Hopkins Hospital may flourish at least as long as the Royal Hospital of St. Bartholomew, in Smithfield, and prove no less useful to mankind,—on the opening day of the Johns Hopkins Hospital, 1889."

The history of St. Bartholomew's is the history of modern medicine. It shows how modern professional training and modern wards adapted to surgical and medical cases, have naturally developed from a mediaeval germ. "For more than seven hundred and fifty years the hospital has flourished upon its present site, and its Smithfield gateway, through which passed men of the generation whose fathers saw William the Conqueror enter London, has ever since been open to the sick poor."

In the pages of Dr. Moore, you may perceive "how the physician grew from a schoolman into a scientific observer, and how the surgeon, who appeared on the scene in livery and without learning, grew from a handicraftsman to be a man of science."

*Dr. Norman Moore.

You may read the names of Caius, Bernard, Pott, Abernethy, Lawrence and Paget; you may learn that Dr. Thomas Young, the originator of the undulatory theory of light, was here a student, and you will come upon the story of one more famous than any person I have named, the discoverer of the circulation of the blood, the illustrious Harvey.*

Time may efface the personality of our founder, as it has effaced the personality of Rahere, the founder of St. Bartholomew's, but the beneficence of Johns Hopkins will last for centuries; and gratitude will cherish the memory of his broad views, his great liberality, his wise and beneficent purposes.

Nor will posterity forget the Board upon which he bestowed this trust. His confidence (the world has even now discovered) was not misplaced. During fifteen years, the public has had the unpaid services of twelve of the most prominent and capable citizens of Baltimore, who have endeavored, under the devoted and enlightened leadership of their President, Francis T. King, to ascertain by correspondence, travel, observation, reading, and reflection, and by consultation with experts in medicine, surgery, nursing, architecture, education and administration, the most enlightened views of the civilized world with regard to the construction and management of hospitals. They have built these seventeen buildings from the income of the fund, and have even increased the principal gift. They have constantly benefitted by the professional advice of the distinguished surgeon, Dr. Billings, to whose words you have just listened; other medical advisers have also given counsel; architects have embodied in good form the utmost requirements of suggestive medicine; engineers have brought to perfection elaborate apparatus for heating and ventilation; women who have had experience in the management of large institutions, and others

* Dr. Moore calls attention to the fact that it was a fund given by Dr. Caius to encourage the study of anatomy, which was the immediate means of leading Harvey to his discovery, and also to a remark in one of Harvey's lectures that it was a passage of Aristotle which first suggested to him the idea.

who know what skilful nursing is,—Florence Nightingale among the number,—have given their wise suggestions. Now we shall see the result of all this thought and care. The noise of the hammer has ceased ; the healing ministry begins.

The exterior characteristics of this Hospital are well understood. It is a private foundation (independent of political or ecclesiastical support), a general hospital (in distinction from those institutions appropriated to special diseases); it has separate rooms for those who can pay for their treatment, in addition to the public wards; arrangements are made for the isolation of those who are suffering from infectious disorders; through the dispensary many will receive treatment who do not need to remain within the walls ; the grounds are ample for temporary tents and barracks, if emergency requires them, and for permanent enlargement ; a training school for nurses has been provided; there are attractive rooms for such young physicians as may be allowed the privilege of residence and study ; suitable laboratories are well equipped for pathological investigations; there are apartments for a medical library and for the conference of medical societies; the proper theatre for clinical demonstrations and lectures has been built; careful records will be kept and published ; important papers will from time to time be printed ; and if the funds would permit, arrangements could be soon perfected for a School of Medicine and Surgery,—by whose beneficent influence the good of. this fonndation might be indefinitely expanded.

One hundred years ago, John Howard, *facile princeps* among modern philanthropists, published in a quarto volume, just before his death, the observations he had made upon the Lazarettos of Europe. That was the beginning of reforms in prisons, asylums, refuges, and hospitals. To this work he prefixed these words of Cicero, and I do not know a motto more appropriate to this day, or one more fit to be inscribed around the central dome of our new building: *Quid tam porro regium, tam liberale, tam munificum, quam opem ferre supplicibus, excitare adflictos, dare salutem, liberare periculis.**

Some of the influences of a Hospital are apparent to the most casual observer ; others are less obvious. Permit me therefore in a few short phrases to remind you of them. Representing at this time, the two foundations of Johns Hopkins, you will not be surprised if I often recur to the close relationship between the advancement of knowledge and the progress of charity.

First, last and always, this hospital is to furnish relief to the sick and wounded. Make the best of it, introduce fresh air and sunshine, and provide the utmost comfort, secure wise physicians, engage the best trained nurses, decorate the walls with pictures, bring fruit and flowers and books and friends,—and even the comforting influences of Religion, yet you cannot conceal the direful consciousness, that this is the home of suffering.

Said Ugo Bassi, in his Sermon in the Hospital, (p. 13).

> From any other ill,
> (Except it be remorse) can men escape
> By work,—the healing of divinest balm
> To whom so hath the courage to begin :—
> But sickness holds the sick man in a chain
> No will can break or bend to earthly use.

The names that have been given to these abodes of the sick are suggestive. Hospitality and hospital alike suggest the bestowal of kindness to guests. The word Lazaretto, ultimately degraded, pointed at first to the restoration of life. Misericordia, *la Charité*, *la Pitié*, the Home of the Good Samaritan, the House of Mercy, bring to mind the kindly influence of love and care. St. John, St. Thomas, St. Bartholomew and St. Luke, above all other apostles, are favorite patronymics. Paracelsus died in the Hospital of St. Sebastian. Bethlehem, Bethany, Bethesda and Jerusalem have recalled the scenes where the Great Physician was present. The name of Christ has been given to many a foundation. In other places the hospital shares with the temple the name of Hôtel-Dieu or House of God.†

*Cicero, *De Oratore*, I. 8.

†How unfortunate that in this country where broader ideas should prevail, we have introduced the usage of sectarian names.

By whatever name it may be called this is a convent where sickness is the abbot. The rule of sympathy for the suffering must govern every body with a strictness of discipline as rigid as the rules of the Benedictines or Carthusians. Those who daily walk these wards will be the warders of life and health, however high their station or however humble their service; and casual visitors cannot cross the threshold of the wards without pity for those who are disabled or without admiration and gratitude for those whose lives are spent in alleviating distress.

2. This Hospital will not only meet the daily calls of humanity, it will stand ready to render extraordinary services in those emergencies which not even the progress of municipal reform and preventive medicine can entirely ward off. A fire, an explosion, an accident on the rails or on the sea-shore, the fall of a platform or of a building poorly constructed, may at any moment tax the utmost resources of a great establishment. We have no fear of leprosy and the plague; we have almost ceased to dread the coming of the cholera; yellow fever, we are hoping to thwart in its approaches to our northern seaports;—vaccination, which was spoken of by Sir James Simpson, "as the greatest thought ever broached in practical medicine" is a great prophylactic; but we are not certain that diphtheria and infectious fevers will not continue to be epidemic; nor can we always be sure that the boards of health in the city and state will succeed in protecting us, as well as they can, from the inroads of pestilence. Indeed it is well to inquire whether Baltimore is fortified as it should be against the hostile incursions of epidemic disease.

This Hospital therefore stands as a reserve force, a sort of store house of energy, ready to serve the city if apprehension and disease spread their pall upon it.

Here let me say, in anticipation of the future, and in memory of the past, that in all the records of bravery on land and sea none are more noble than those of the medical profession. Free from all excitement, free from the hope of reward, free from any commands but those which are divine, they have in times of pestilence gone from bed to bed, firm, fearless, faithful, carrying the offerings of cheer, comfort and relief, and often of restoration to health and vigor. For them, there is no repose in time of danger. The black wings of death hovering over a city do not deter them from duty; and often it may be said of them as Milton said of Abdiel, "faithful among the faithless," faithful only they.

Read the annals of modern pestilence, of cholera in New York, of fever and famine in Ireland, of yellow fever in the South. Every where it is the same story. The more direful the record, the more unflinching, the more self-forgetful, the more humane are the efforts of physicians,—in their exhaustive ministrations to the sick and dying.

3. While the offices of a hospital are bestowed without money and without price on those who are destitute,—those who are able to pay for suitable attendance, and for the domestic comforts to which they are accustomed, may discover that they can here be better treated than in many private houses. The conditions of quiet are more easily secured; suitable diet at unusual hours can be commanded; medical attendance is within call at every moment of the day and night; manifold appliances for relief are more readily obtained. More and more frequently, travellers, students, all whose homes are in hotels and boarding houses, and even many who have good private homes, turn toward good hospitals when they see the need approaching for prolonged and special care. For the wants of such persons provision has been made in the wards here set apart for paying patients,—male and female.

4. This Hospital would be a very narrow institution if it kept to itself its experience. It is the essence of quackery to deal in mysteries and nostrums; it is the glory of medicine that it owns no patents and conceals no discoveries. On the contrary, the best hospitals of the world consider it one of their first duties —second only to the care of their patients

—to record the cases they have treated, the methods they have pursued, the results whether favorable or unfavorable which they have followed. Scientific studies in pathology and practical medicine must be printed. Special papers, often requiring costly illustrations, must be published upon extraordinary cases, and upon new operations and modes of relief. It is thus that the science of Medicine is advanced. Where secrecy reigns, carelessness and ignorance delight to hide; skill loves the light.

5. It is impossible to have a hospital without its becoming a place for medical education. It is interesting to note that in the physician's oath, attributed to Hippocrates, the duty of imparting knowledge is explicitly enforced. Even the country doctor as he rides from village to village, takes in his gig an observing pupil, like the squire to a knight-errant. Every great surgeon is watched with the closest attention by the younger physicians who assist him. Every mother is the pupil of the physician whom she calls upon to attend her suffering child, So, of course, a hospital, having upon its staff men of rare qualifications who are in daily consultation with their most skilful brethren, is, from the necessities of the case, a place for instruction. How systematic that instruction will be depends on circumstances that at the moment need not be presented. All that need now be is that hospitals the wide world over are the schools of medicine and surgery.

6. The training of nurses is another form of hospital activity, recently developed, never hence to be abandoned. To the sisterhoods of the Roman Catholic Church, to the Protestant Deaconessess of Kaiserswerth and the Bethanien at Berlin, and to many guilds in many lands, much credit is due for lessons they have taught the world, as to the importance of training nurses. Elizabeth Fry was one of the first Englishwomen to propose such instruction. Florence Nightingale, by her influence in the Crimean war, and by her subsequent writings. has borne a noble part in this work. So, too, have our own country-women. The civil war, full of sad recollections, has some bright stories, and among them none more inspiring than the labors of brave, self-sacrificing and intelligent women in the Hospitals. Who that has read "What we did at Gettysburg," or "Hospital Days,," has forgotten their lessons? As a direct result of the war, Nurses' Schools have grown up in every part of this land. Our Hospital has such a department soon to be opened, where nurses will be trained, not only for their merciful offices within these walls but for household engagements and for visiting among the poor.

7. A good Hospital may readily become the rallying place of the medical profession who are resident in the City. Homer discovered that

"Through mutual intercourse and mutual aid
Great deeds are done and great discoveries made;
The wise new wisdom on the wise bestow
Whilst the lone thinker's thoughts come slight and slow."

One purpose of this central building is to afford opportunities for professional intercourse. Here are rooms set apart for the library that will presently be collected; here the medical journals will be taken in; here are the best appliances and instruments for the treatment of patients; here are rooms for private consultations and for public conferences; here are laboratories for physiological and pathological determinations; and it will not surprise me to hear that within a very short time medical associations are here brought together "for mutual intercourse and mutual aid" at the invitation of Dr. Osler, the physician in chief, who this day assumes his great responsibility with the hearty welcome of Baltimoreans, and with the well-earned confidence of the profession throughout the entire land.

8. Reference must also be made to the lessons that this hospital has already given to the world, before a single patient has been received. The vast amount of thought bestowed upon these buildings, not only in their general arrangements,—but in thousands of details which promote their efficiency, has not failed to attract the attention of

observers from every part of the globe. The letters which have been received during the last few days from the most distinguished surgeons and physicians abroad, and the presence of this large body of medical men from the distant cities of the United States are indications of this interest.

9. Finally, if this hospital becomes the seat of knowledge in all that pertains to the nature of disease, its treatment, its prevention and its cure; it will of necessity be a constant guide to the people of the city and the State in which it is placed; it will promote the general health of the inhabitants. There is an altar in one of the churches of Messina, which bears an inscription to Aesculapius and Hygeia, the God of Medicine and the Goddess of Health; and their statues are found together on the façade of Guy's Hospital. May they always be associated in Baltimore.

Is all this outlay wise? I might answer an inquirer in the words which Wordsworth employed in speaking of King's Chapel, one of the most costly structures in the University of Cambridge:

"High heaven rejects the lore
Of nicely calculated less or more,
Tax not the royal saint with vain expense;
With ill-matched aims, the architect who planned
This glorious work of fine intelligence."

For in this hospital as in that church are

"Thoughts whose very sweetness yieldeth proof
That they were born for immortality."

But I prefer to give a more specific and appropriate reply to those (if any such there be) who say, "I believe in everything that is practical, in whatever leads to the relief of suffering; but I am afraid of this talk about science. I would rather see a thousand beds for patients than any provision for medical education." Such reflections are to be heard with respect, for they are natural to minds unacquainted with the intimate relations which subsist between the progress of medical knowledge and the progress of medical art. Nevertheless it is true that those who have most carefully studied the conditions by which human life is perpetuated, human sufferings lessened and human vigor increased, are well aware that every step forward in science leads to many forward steps in practice. May I endeavor to be a mediator between these two divergent views and bring a few illustrations from the Doctor's shop to the attention of those who are practically interested in hospitals, but who have paid no attention to the steps, so slow, so difficult, so uncertain at first but so sure at last, by which the Healing Art makes progress.

The late Dr. Austin Flint, of New York, in an address prepared near the close of his life, has pointed out with the wisdom of experience the probable "Future of Medicine." It would be presumptuous for me to attempt to do again what he has done so recently and so well. But on this day of promise, in view of all this expenditure, it is fitting that we should bring to mind some inspiring thoughts.

Let us first consider the benefits which have come to mankind from the opportunities which hospitals have afforded for the observation of disease. There is no one among us more competent to speak upon this subject than the pathologist of this hospital, Dr. William H. Welch, who, years in advance of its opening, has been engaged as a professor of the university in the study of the nature and origin of disease. He has called my attention to these noteworthy points:

"Those who have contributed the most to the advancement of practical medicine and surgery have accumulated their experience largely in hospital service. By the constant attendance of skilful physicians and of well-trained nurses in hospitals, precise observations can be made and the phenomena of disease and the influence of treatment determined under the most favorable conditions.

"Our present knowledge of the natural history of disease, of its diagnosis, prognosis and treatment are based to a very large extent upon experience de-

rived from hospitals. Text books, monographs and medical journals incorporate this experience and bring it to the knowledge of the medical profession. This is why intelligent physicians are always eager to secure the advantages of a hospital service."

The benefits which medicine has received from purely scientific investigations may be shown by so many examples that it is difficult to make a selection among them. Dr. Welch mentions these.

"Upon the foundation laid by Helmholtz's researches in phyiological optics, and his discovery of the ophthalmoscope, the art and science of ophthalmology have developed into the most accurate department of clinical medicine.

"The investigations which received their impulse from Du-Bois-Reymond in the difficult subject of animal electricity have rendered electricity available for diagnosis and treatment, and have advanced thereby our knowledge of nervous diseases.

"Of the many ways in which the work of the chemist has aided medicine may be cited, as one of its most recent contributions, the introduction into modern therapeutics of many useful remedies which are the products of synthetic chemistry. Doubtless this is a field which will be cultivated still further, and it would be rash to attempt to foretell what agents for the cure of disease and relief of suffering are still hidden in the chemist's laboratory.

"By the discovery of the specific germs causing various infectious diseases, surgical practice has been revolutionized. It has become possible to prevent the infection of wounds from the exterior, and thus to guard against a host of traumatic infections which rendered dangerous and futile so many surgical operations. Preventive medicine has taken its place among the exact sciences.

"Accurate knowledge of the causes of disease now forms a sure basis for intelligent therapeutics and there is every reason to expect that the future will bring to light means to overcome the injurious agents which are now, for the first time, known."

But there is another illustration so marvelous that it may almost be called miraculous. The relations of advancing knowledge to advancing charity are brilliantly displayed by the history of methods for the relief of pain.

To put a stop to suffering is an instinct of human nature, distinguishing man from animals. The most scientific men, and the most practical are agreed upon this, and have been so agreed for centuries. But Anaesthesia, most welcome of all the angels or mercy, came down from heaven. When the older surgeons in this assembly were students, opium and alcohol were the imperfect anaesthetics most usually employed. Their use was restricted and unsatisfactory if not dangerous. No one can tell what was suffered in places where gentle sleep now quiets apprehension and makes the patients unconscious of his woe. To this alleviation, we are so wonted that we accept it as the air we breathe. But if you would learn how man secured this boon, how many efforts of scientific and of practical men were combined before the results were reached, recur to the history of four modern agencies, which are like "the gentle dew from heaven, which blesseth him that gives and him that takes." It is a chapter more wonderful than any romance of the Arabian Nights.

Let any one present who is skeptical in respect to the usefulness of science to the healing art, keep this record in his mind. Let him reflect on the apprehensions that have been removed not only from the patient but from his attendant friends; let him see how much easier and therefore how much more certain the task of the surgeon has been made: and above all let him think of the hours of pain that have been absolutely annulled, and then let him divide the honors if he can, which belong to Science from those which belong to Philanthropy: let him balance half a century of scientific relief with the previous practice of many thousand years; then let him tell us which is better.

From the past let us turn to the future. All the signs of the times point to a new era in the history of mankind. All the

sciences are leading up to a better understanding of the laws of life, to a true Anthropology, and the consequent improvement of the physical, mental and moral powers of man.

There are four or five directions toward which we may turn an expectant gaze, as in days gone by the merchants watched upon the house tops for the return of the ships they had sent out to distant ports.

Preventive medicine promises to do more and more for mankind. As the germs of many specific disorders have been discovered, so the means of their destruction have been found out. If legislation and civil administration keep up with science, if knowledge is controlled by virtue and followed by temperance, the community will be freed from many of the foes which in former generations have slain their tens of thousands.

From the chemical laboratory new remedies, as well as simpler forms of old remedies, are to be constantly looked for. The synthetical processes which now receive so much attention have lately made important contributions to the pharmacopeia. It would surprise any one whose attention has not been directed to this point to know how many claimants are awaiting judgment. Scores of substances, till lately unknown, as I have heard my colleague say, are awaiting the study of competent therapeutists.* Nobody can fortell what will come from their new contributions to materia medica, but one who watches the processes of discovery must feel certain that secrets hid from the beginning are ere long to be revealed, and, that many of the substances already discovered have properties of the most serviceable character.

No one can say what will result from the attention that has been recently given to the study of psychical phenomena by the exact methods of science,—but the outlook is hopeful. If we are as far as ever from elucidating the mysterious inter-relationship of the mind and the body, progress has certainly been made in the knowledge of the laws by which they act upon one another. The knowledge that has been acquired in respect to the functions of the brain and nervous system has already led to the treatment of many disorders and the relief of many diseases which a short time ago were beyond the reach of remedy. We are not without hope that in the physiological and psycho-physical laboratories already established here, important contributions will be made to science which will ultimately prove to be of value to medicine and the conduct of the body in health and disease.

Medical appliances and surgical instruments are greatly to be improved. The surgeon who has just returned from Europe, after visiting in the interest of this hospital the most celebrated instrument makers, has informed me that the processes of manufacture are even now behind the devices and requirements of surgical science. The hands have not kept up with the brains. It is not possible to buy ready made the instruments which an accomplished surgeon now requires. In the future we are to look for progress in the applications of electricity and magnetism to the treatment of disease as well as to its diagnosis.

Chemistry by its synthetic methods is producing new remedies, which experimental therapeutics proceeds to test, and pharmacy then appropriates. The laws of light, heat, electricity and magnetism are found in close relationship to the problems of relief and cure. The laws of temperature and climate have their services to render. Even the influence of barometrical pressure upon surgical operations begins to be noticed. The study of the nervous system is sure at no distant day, to make important contributions to the welfare of man. Psychology is waiting for the results. Experimental physiology is doing its part. Pathology, a term as old as Hippocrates, has become a new science within the last few years. The laws of descent have but just begun to assume a scientific form. Preventive medicine is almost a new conception. The morality of personal hygiene is a new department of ethics. Biology, after having received the same critical reception with which anatomy, astronomy, geology and chronology were greeted, as they approached maturity, will yet be honored

*Professor Remsen.

as leading to the highest and noblest conceptions of humanity. Anthropology, the knowledge of man in his relations to the universe in which he is placed will prove to be the culmination of finite knowledge.

So all along the line, in the laboratories of the university and in the wards of the hospital, knowledge is leading up to the welfare of man. The days of the coming man may not always reach the full allotment to which Chevreul has just attained, but perhaps to die at seventy will be to die in youth, and to reach the age of eighty or ninety in health and vigor, will be the rule and not the exception. Nor is length of days our only hope. The disappearance of epidemics, fewer days of confinement in sickness, fewer "minor ailments," a decrease of infantile mortality, greater powers of resistance to the evils of certain occupations, and comparative immunity from many infirmities which are now common, artificial reinforcements and replacements of bodily defects, simpler and surer means of diagnosis, the detection of the nature, origin and history of specific affections, —and finally the assurance of euthanasia. These, as it seems to a layman, are reasonable expectations which the nineteenth century holds out to the twentieth. Can any outlay be too great if humanity is thus benefitted?

To the attainment of these noble aims, "the relief of suffering and the advancement of knowledge," the foundations of Johns Hopkins are forever set apart. On the one hand stands the university, where education in the liberal arts and sciences is provided, and where research is liberally encouraged; on the other hand stands the hospital where all that art and science can contribute to the relief of sickness and pain is bountifully provided. Is there anything wanting? Yes,—there is still a great want to be supplied, an arch to rest upon these pillars. An institute of Medicine and Surgery, a College of Physicians and Surgeons, a Medical School,—the office of which shall be to promote the training of young physicians, and the encouragement of medical science is imperatively needed. Is it too much to say that there is not such an opportunity on the face of the globe for another Peabody or another Hopkins to benefit his fellow men.

The university needs all it has, and more, to carry on the non-professional courses to which its funds are appropriated. The hospital, with all its readiness to co-operate in the advancement of knowledge will, after all, remain, as I have said before, and cannot say with too much emphasis,—the home of the sick, the feeble, the injured and the dying. It is the house of mercy, not the hall of philosophy. But in close alliance with both these foundations there is a place for a school of medicine, which may bear its founder's name, and may render services as significant and memorable as those of Salerno and Bologna, at the beginning of the modern era, as those of Leyden and Edinburgh where the earliest American physicians received their education; or those of Berlin and Vienna to which so many students of this decade resort.

This grateful city should no longer delay placing upon one of the squares near the monument of Washington, the figure of Johns Hopkins, with such designs as an artist, and an artist only, could devise, to typify the great ideas which underlie his gifts,—"the advancement of knowledge and the relief of suffering."

Then might some friend of this hospital place beneath this dome a copy of Thorwalsden's Christus Consolator, with the outstretched hands of mercy, to remind each passer-by—the physician and the nurse, as they pursue their ministry of relief; the student as he begins his daily task; and the sufferer from injury or disease, that over all this institution rests the perpetual benediction of Christian charity, the constant spirit of "good will to man."

Upon one hill of Baltimore rises a temple, "whose guardian crest, the silent cross" is an emblem of the Christian faith; upon another, a lofty column reminds us of the patriot's hope; upon a third, the Hôtel-Dieu is placed,—the house of charity. Significant triad! "Here abideth Faith, Hope and Charity, but the greatest of these is Charity."

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BALTIMORE, MAY 11, 1889.

Editorial.

THE OPENING OF THE JOHNS HOPKINS HOSPITAL.—If Johns Hopkins could have been present in spirit last Tuesday at the opening of the hospital bearing his name, he would have been more than pleased and satisfied with the way in which his twelve trustees had carried out their work. Even the few grumblers who said that the hospital should have been opened long ago and that the trustees were spending too much time over the work, have probably forgotten their discontent since they have seen the result. When a great undertaking has been completed, and the promoters sit quietly and view their work, they alone appreciate the amount of care and worry such a work has cost them. The simple and tasteful opening ceremony of the Hopkins Hospital was the culmination of years of hard work, tested at every step.

Long before the opening day, a limited number of tickets had been distributed to guests in and out of the city and also to a few of the medical profession. The exercises of the opening of the hospital were held in the rotunda of the administration building. At the foot of the grand stairway a stage was erected on which sat the Governor of Maryland, the Mayor of Baltimore, the Trustees of the Hospital, President D. C. Gilman and Members of the Faculty of the University; in the north, south and entrance corridors seating was allowed for the audience, also in the gallery above all seats were filled. Promptly at eleven Mr. Francis T. King, President of the Board of Trustees of the Johns Hopkins Hospital arose and introduced Rev. Joseph T. Smith, of the Central Presbyterian Church, who offered prayer. Mr. Francis T. King then in a neat address welcomed all present, and without going into a history of the hospital which was left for the other speakers, he said that the 17 buildings had been constructed and finished, and the 14½ acres enclosed and beautified not only without taking a dollar from the principal placed in the hands of the Trustees, but with an actual increase of the endowment by judicious investments by the sum of $113,000, showing that the Trustees had by no means failed in their duty. He then referred to the motives which induced Johns Hopkins to endow such an institution. He then concluded by introducing the other speakers, Dr. John S. Billings and President D. C. Gilman, whose addresses will be found in this issue. Both of these addresses were very much what was needed to explain more fully the needs and purposes of the hospital, both touched upon the same subjects from a different aspect. In view, however, of the length of each speech, it would have been better if the speakers had read each other's speech before delivery, as many of the same facts appeared in both addresses. President Gilman also suggested that the city should erect a monument to Johns Hopkins in some public square, but how many monuments does one man need? He already has several in the city, the Hospital, University and several smaller institutions which are much truer monuments than a useless shaft of marble or a figure. After the Hospital had been formally declared open by Governor E. E. Jackson, of

Maryland, and a few announcements had been made, the out of town guests adjourned to a collation, and the others walked about and inspected the buildings of the Hospital.

Everything about the Hospital has been thoroughly tested, but of course when patients begin to be taken in, the slight defects can be easily remedied. The next important step is the building of a medical school, and unfortunately this will not be done very soon. The funds of the Hospital are carefully invested in real estate, etc., which has always ensured a good income, while the University income has been greatly reduced by the passing of B. & O. dividends. As the medical school must be a part of the University, it must either wait until the Baltimore and Ohio R. R. pays its dividends or until some public citizen will give enough to build a school. While many have forgotten the personality of John Harvard or Eli Yale, Johns Hopkins, who died so recently, will long be remembered by those who knew him personally, hence it will be no easy matter to persuade a wealthy man to give to an institution already bearing the name of one so recently living. But the Trustees have "made haste slowly" in all their work and have done it well, and we may trust to them to find the needed money for a medical school which will be so necessary an adjunct to a large hospital and dispensary furnishing abundant and excellent material.

Medical Items.

The Trustees of the Johns Hopkins Hospital have appointed Dr. Lafleur, of Canada, as resident physician.

It is reported that Dr. W. T. Councilman will soon return and begin his duties at the Johns Hopkins University.

Patients will be received into the Johns Hopkins Hospital as soon as possible after the opening of the Dispensary.

It is probably almost superfluous to state that Dr. Wm. Osler is now a resident of Baltimore and will spend his next year in organizing the Dispensary and Hospital Work at the Johns Hopkins Hospital.

Dr. Wm. S. Halstead who was recently appointed Surgeon-in-chief to Johns Hopkins Dispensary and was sent abroad to buy instruments, has returned from Europe and will begin his work next Monday in the Dispensary.

Dr. Alex. C. Abbott, after spending two years in the hygienic laboratories of Pettenkofer in Munich and Koch in Berlin, has returned to the city. He will not practise, but will probably continue his work at the Johns Hopkins Pathological Laboratory.

A head nurse with two assistants have already been appointed to the Johns Hopkins Hospital, and the force will be increased as occasion requires.

The emergency fund of one hundred thousand dollars has been subscribed to the Johns Hopkins University, and it will go on for at least three years without embarassment.

Dr. H. A. Tomlinson, of Philadelphia, has removed to Baltimore, and has opened an office at 2002 St. Paul St. He will probably occupy a position in the department of Nervous Diseases in the Johns Hopkins Dispensary.

Mr. Eugene Levering has given $20,000 to the Johns Hopkins University for a building, and Mr. and Mrs. Lawrence Turnbull have endowed with a similar sum a memorial lectureship of poetry. James Russell Lowell will be invited to give the opening lecture of the course.

At the opening ceremonies of the Johns Hopkins Hospital, a telegram of greeting was received and read from Trinity College, Oxford, England, because George Calvert, the first Lord Baltimore, and the settler and founder of Maryland, was a graduate of Trinity.

The Trustees of the Johns Hopkins Hospital gave a reception to the strangers and a few of the medical profession at the Mt. Vernon Hotel on Tuesday night. On account of the small parlors only a hundred invitations were sent out. Mrs. Gilman received the guests. Prof. A. Graham Bell and family were present.

The Departments of Pathology and Biology at the Johns Hopkins University have been combined and will be called the Department of Normal and Pathological Biology, with Professors Martin and Welch at the head, assisted by Assistant Professors Brooks, Howell and Councilman and Drs. Andrews and Mall. Those working in this department may take any or all branches, but the object of the arrangement is evidently to compel students to study Normal Biology first and Pathology last. Under the first head will be included Physiology, Histology, Morphology and Botany, and in Pathology will be included Gross and Microscopical Pathology, Experimental Pathology and Bacteriology.

Original Articles

SUGAR TESTING WITH SPECIAL REFERENCE TO "ALCAPTONURIA."*

BY T. BARTON BRUNE, A. M., M. D.,
OF BALTIMORE.

[Being a Part of the Report of the Section on Materia Medica and Chemistry.]

Mr. President and Gentlemen:

In view of the fact that the caustic alkalies in solution—i. e., Heller's or Moore's test-liquid, or alkaline copper solutions—Trommer's or Fehling's, with their modifications—are probably the most commonly used tests for glucose in human urine; and in view of the further fact that in the light of recent knowledge their positive conclusions are to be considered untrustworthy, it seemed to the writer that a few words of caution regarding their use might be seasonable and of interest to many of you.

We now know that there are a large number of substances which re-act with these tests in such a manner as to deceive the examiner and to give the erroneous impression that sugar is present when such is not the case. Such substances may, conveniently, be divided into two classes, namely:—those introduced into the system or their derivatives, and those produced within the system.

Every one, no doubt, is aware that a temporary glycosuria may be produced by excessive indulgence in starchy and saccharine foods, but perhaps all of you do not know that a large and constantly increasing number of drugs, when introduced into the system, have the power directly, or through their derivatives, of reducing alkaline copper solutions. Thus chloroform (unchanged), turpentine, benzoic, salicylic and tannic acids, glycerine, morphine, chloral, camphor (glycuronic acid being formed), copaiba, cubebs, hydroquinol, ortho-nitrotoluol, phenol, and benzol, will give rise to this reaction.

Their disturbing influence in sugar-testing is not, however, confined to the copper reactions. Some for instance—as hydroquinol, phenol, and benzol—give a very misleading reaction with Heller's and the bismuth subnitrate tests, namely, a brownish discoloration of the mixture in the former, and a brown discoloration of the supernatant liquid with apparent blackening of the bismuth salt in the latter case. Some are active towards polarized light; thus, glycuronic acid and the derivatives of phenol, hydroquinol, benzol, chloral and copaiba are laevo-gyrate. Turpentine forms, or gives rise to a fermentable compound; and potassium glycuronate forms crystals with phenyl-hydrazin hydrochlorate which are very similar in appearance to those produced by glucose, but melt at 114° to 115° C. Sodium salicylate, also, causes a reduction of picric acid in Johnson's test.

In the second class belong such substances as uric acid and the urates, creatinine, indican, leucine, inosite, lactose, levulose, and the so-called "alcapton" and alcapton-like bodies.

It is my purpose to speak more especially about the last named, and I shall say only a few words about the others.

No doubt all of you know that uric acid and the urates are disturbing bodies with Fehling's solution, and must be eliminated by extreme dilution or precipitation by hydrochloric acid and filtration after some hours, but perhaps all of you may not know that creatinine, a substance occuring in normal urine, in quantity a little greater than that of uric acid, may also give a confusing reaction with Fehling's solution. According to Giacomò[1] it produces the yellow discoloration, with slow or no reduction to copper suboxide, sometimes seen with this test, and may thus give the erroneous impression that a small quantity of sugar is present. As it also retards the reduction to the suboxide, it may cause an error in the opposite direction, inducing an underestimate of sugar actually present. It has also been determined to be the "saccharoid" substance which in

*Read before the Medical and Chirurgical State Faculty of Maryland, April 25th, 1889.

1. Chem. Centralblatt, 1884, p. 185.

normal urine gives the sugar reaction with Johnson's picric acid test. Possibly Méhu's method[1] may eliminate this and other reducing agents, but it takes too long for the ordinary practising physician.

Some of you may have noticed at times that on boiling Fehling's solution and adding the suspected urine there results a green color followed by the subsidence of a light greenish precipitate and the return of the blue color to the supernatant liquid. This reaction is attributed[2] to inosite. Reboiling the liquid will cause the same change of color. Lactose also reacts as glucose with alkaline copper solutions, and rotates polarized light to the right, but does not undergo alcoholic fermentation with yeast. But as this occurs only in pregnant and nursing women it is not likely to deceive in many instances.

Lævulose is, however, harder to eliminate, as it not only reduces the copper salts but readily ferments. It may be distinguished by its action towards polarized light which is laevo gyrate, and its specific degree of rotation diminishes with the rise of temperature. Hitherto it has only been found in diabetic urine.

Leo,[3] after removing all the ordinary reducing substances, such as uric acid, creatinine, coloring matters, etc., has recently found in three out of twenty-one cases of diabetes, a new substance belonging to the sugar series and isomeric with glucose. It reduced strongly the copper solutions, but was laevo-gyrate and non-fermentable. He did not find it in normal urine, and no name has been proposed for it.

Lenbe[4] also has found in the urine of a patient having osteomalacia, cystitis and nephritis, a new coloring matter, which turned the urine a dark violet to brown on exposure to air i. e., oxidation, and gave a brown, later, yellow color with alkalies. It gave characteristic spectroscopic appearances.

1. L'Union Médicale. Tome XLIII, p. 485.
2. Oliver, as quoted by Tyson, Practical Examination of Urine, 6th, Ed., p. 105.
3. Deutsche med. Wochenschrift, S. 869, 1886.
4. American Journal of the Medical Sciences, vol. XCIV, p. 545.

The group of substances, however, to which I, especially, wish to call your attention is that typified by the so-called "alcapton"—its occurrence in the urine being designated as "alcaptonuria."

The name "alcapton" was given in 1861 by Boedeker[1] to a body which he extracted from the urine of a man, 44 years of age, whose urine also contained a small percentage of sugar. The chief peculiarity of this body was the avidity with which it seized upon the caustic alkalies—whence its name (alkali—káptein).

Without going into the isolation of this body, its most important reactions for physicians were:—1. The urine containing it took on a brownish discoloration from the surface downwards when shaken with an alkali, i. e., oxidation was assisted by the alkali. 2. It reduced alkaline copper solutions, as glucose. 3. It did not ferment with yeast. 4. It did not reduce bismuth subnitrate.

In 1875, Ebstein and Müller[2] found in the urine of an apparently healthy infant a body which gave these same reactions, but contained no nitrogen as alcapton was said to do.

This body they determined to be pyrocatechine.

In 1882, Dr. W. G. Smith,[3] of Dublin, isolated from the urine of an apparently healthy child, 3 years of age, a compound, which on exposure to air turned brown from the surface down, staining the child's linen a brown color, and giving the other alcapton reactions, except that it reacted slightly with Loewe's bismuth test. This body he determined to be proto-catechuic acid—a conclusion confirmed by Prof. Hartley's optical examination.

Dr. Robert Kirk[4] reported, in 1886, another body giving the same reactions with the copper and caustic alkali tests. This body he isolated, although not in a pure state, and called "urrhodinic acid".

In August of last year, however, he reports, further, that this urrhodinic acid is in reality a compound body, made up

1. Jahresbericht der Chemie, 1861, S. 806.
2. Ebstein und Müller, Archiv für Path. Anat. Bd. LXII, S. 554.
3. Dublin Med. Journal, LXXIII, p. 465.
4. British Med. Journ., Nov. 17th, 1886.

probably of three different substances. That is to say, when the urrhodinic acid, extracted from the urine by ether, was treated with neutral lead acetate and the precipitate allowed to form slowly, it could be divided into two parts—a dark and a light one—both being separated from a pale yellow filtrate. The light yellow precipitate he isolated, purified, and found to be a mono-basic, crystalline acid, of the formula $C_5H_{10}O_5$, and having a melting point of 133.3° C. This body he called "uroleucic acid." He found it gave all the reducing actions of Boedeker's alcapton, and besides reduced the bismuth salt in Loewe's test, although this latter reaction required a solution of at least ½ per cent., much stronger than the urinous one. It gave with ferric chloride a transient green color, though its crystals produced with a drop of the ferric chloride solution (1-40), a red color. The pale filtrate, above mentioned, gave an amorphous, yellow substance, which was also an acid and gave all the alcapton reactions. This he called "uroxanthic acid," and considers that alcapton is this body in an impure state. Its reactions are weaker than those of uroleucic acid, and it does not reduce the bismuth salt. The dark precipitate consisted of still another acid, with reducing powers similar to those of uroxanthic acid, but he considered it to have been formed in the process of analysis and not to have existed in the urine originally.

In 1886, Dr. John Marshall,* of Philadelphia, and myself† working independently, investigated and reported upon the urine of a candidate for life insurance, which urine contained a peculiar and hitherto undescribed reducing substance. The candidate was apparently healthy, but had been repeatedly rejected by life insurance examiners on account of supposed glycosuria. His urine was perfectly clear and without sediment. On standing several hours it became first a reddish-yellow; later, a brownish-red from the surface downward. It gave a port-wine red, later an almost black color, with sodic hydrate. Nitric acid almost decolorized the fluid, but evolved no caramel odor. The substance produced a brown color in the supernatant fluid with Boettger's test, but did not reduce the bismuth salt. It gave a light violet color with thymol and sulphuric acid. It gave no appreciable reaction with polarized light; it did not ferment; and according to Dr. Bond,* did not react with phenyl-hydrazin hydrochlorate. It did, however, reduce copper salts, and gave the sugar reaction with Johnson's picrid acid test. With ferric chloride it gave a faint green precipitate. Both Dr. Marshall and myself isolated the body in crystalline form, but by different methods. Its crystals were opaque, needle-shaped prisms, arranged in groups radiating from a center. They melted at 140° C. Dr. Marshall found it to be an acid, and proposes, provisionally, the name of "glycosuric acid" for it. It seems to be closely related to Kirk's "uroleucic acid," and possibly a derivative of one of the aromatic series. Its disturbing reactions with the usual sugar tests make it of very practical interest, and more rigid examinations of urine may resulted in its more frequent detection.

In conclusion, we have seen that a large number of substances—some from without and some from within, a few occurring physiologically, and many under conditions of which we know little—have the power of acting in such manner with the caustic alkalies and copper solutions as to be indistinguishable from glucose by their means. It is, therefore, obvious that these tests *alone*, should no longer be relied upon as giving positive proof of the presence of glucose—at least as regards the practising physician or life insurance examiner.

Especially will this be demonstrated if further examination confirms, what is now asserted, that there is present constantly in normal urine a substance yielding aromatic bodies or their derivatives—some of which give these alkapton reactions.

*Medical News, January 8, 1887.
†Boston Medical and Surgical Journal, December 30, 1886, and January 27, 1887.

*Medical News, Aug. 6, 1887.

I would not, however, be understood to entirely condemn Fehling's or Heller's tests, even for physicians, as I regard Fehling's, at least, as of great *negative* value—that is to say, if a urine tested by Fehling's reagent gives no response, any glucose which it may contain has no clinical significance. What I wish especially to emphasize, is, that no *single* test, not even the fermentation or phenylhydrazin, should be regarded as sufficiently proving the presence of glucose.

THE ANIMAL SUTURE IN INTRA-VAGINAL PLASTIC SURGERY.*

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The evolution of intra-vaginal plastic surgery from the domain of a crude and unskilful procedure to a plane of high art and dextrous manipulation is due to the establishment of two principles—the principle of the speculum and the principle of the metallic suture, both elaborated by the genius of Marion Sims.

To the speculum must be referred that facility of exploration and the application of those mechanical details which give the surgeon command of the vaginal walls and vaginal contents. Facility of exploration has so aided manipulation that procedures hitherto impossible are now undertaken with comparative ease.

The idea of the speculum came from its originator's brain full-fledged. It created an era in gynecic surgery as well-worked as that which characterized the discovery of anæsthesia in general therapy. Destroy the principle of Sims' instrument and intra-vaginal plastic surgery becomes as impracticable as prior to its introduction. Nor have the modifications of the Sims' speculum in any manner improved the principle or to any marked degree the facility of manipulation first imparted to it by its originator. To-day and for all time the principle is unalterable and lives as one of the happiest illustrations of inventive genius ever originated by a single mind.

The principle of the metallic suture, which solved for the speculum the important idea of its vast utility in plastic vaginal surgery, was evolved by the genius of Sims as a necessary complement to the idea of successful exploration. Sims first grasped the value of his principle of easy exploration and manipulation and after numerous experiments it occurred to him that the metallic suture was essential to his success in plastic work. His genius recognized in silver the necessary metal, and without knowledge of precedent in this direction he made successful application of his discovery. Plastic vaginal surgery at once became in the hands of Sims an assured fact, and its evolution has been the natural development of the idea originated by this remarkable man. The metallic suture had been used prior to the time of Sims by old Dr. Mettauer, of Virginia, who is credited with having used the iron wire suture as far back as 1830.

In his most fascinating autobiography Dr. Sims tells us how he arrived at his discovery of his speculum and how with this instrument he succeeded in his plastic work within the vagina, through the instrumentality of the silver suture. He was not aware of any precedent in this direction and so far as my information extends no previous effort had been made to use the silver wire suture in intra-vaginal surgery.

Silver wire possesses many advantages for plastic surgery. It is exceedingly pliable, cleanly and easy of application. It is non-corrosive, and non-irritating, save by its simple mechanical presence. It is easy of adjustment and admits of a delicate and neat approximation of cut surfaces. In fact it has positive advantages over other material employed as a suture and only one disadvantage, but this disadvantage is so striking that it is a barrier which must forever impair its otherwise striking advantages. The silver wire is non-absorbable and must, therefore, in every instance be removed

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when employed in plastic work. Whilst non-irritating it is nevertheless a foreign body and its course through the tissues is an open track which will not close until its removal is accomplished. The wire suture exercises a cutting force and is easily imbedded by the swollen and inflamed tissues. Its removal must often be undertaken under difficulties.

In plastic vaginal work the mechanical presence of the wire is annoying to the patient and its removal is attended with greater or less pain. This is especially true of those procedures instituted for the repair of cervical and perineal lacerations. In vesico and recto-vaginal fistulæ, as far as my experience goes, the wire suture is to be preferred, though experience may demonstrate that in these, as in other procedures, its usefulness is overrated.

For over two years past I have almost entirely discarded the silver wire suture in operating upon the cervix and perineum, and with a growing experience I am inclined to throw it overboard altogether. I was at first distrustful of the animal suture and alternated each suture with a silver thread. I next used the animal suture all along the line of incision, save at the points of greatest tension, where I used the wire. Latterly I have trusted the animal suture altogether in many cases and I find the results far more satisfactory than I had dared hope. In no case have I failed to get good union, and in the majority of instances the line of union has been simply perfect. This has been especially true in operations upon the cervix.

In my early work I was in the habit of using the silver suture altogether. In the double operation of trachelorrhaphy and perineorrhaphy, I performed the operation first named and then after a month or six week's interval closed the perineum. Within the past two or three years I have been able to abandon this plan and I now invariably do both operations during the same anæsthesia. The use of the animal suture first encouraged this plan. After closing the cervix with cat-gut the perineum is closed with the same material. The patient is placed in bed and kept upon her back for a week or ten days. At the end of this time repair has taken place, the suture is absorbed or dissolved, suture points closed and nothing further is required beyond a few days' convalescence. After all inflammatory swelling and soreness have disappeared the case is dismissed with the simple injunction to use the hot vaginal douche for several weeks. I should say here that the hot-water vaginal douche is first administered on the 4th or 5th day after the operation. By this time primary union has taken place and if any break has occurred in the line of suture and union by second intention becomes necessary the hot vaginal douche will favor the reparative process.

To illustrate the advantages of the animal suture I select from a number of cases the brief histories of three cases illustrating the different procedures in which the suture was used.

TRACHELORRHAPHY.

Case I. Mrs. D., aged 28, bilateral laceration of cervix of over four years standing. Lips somewhat hypertrophied, widely gaping and edges eroded. Mucous membrane secreting profuse muco-purulent discharge, constant pains in pelvis and back, nervous depression and general lowering of health.

The operation clearly indicated. Under chloroform anæsthesia, the lips of the wound were carefully pared, and closed with No. IV. carbolized cat-gut suture, manufactured by the Lister Manufacturing Company. Patient was placed in bed and at end of 7th day union was found complete, sutures absorbed and patient in comfortable condition in every way. On the 10th day the patient was up and going around her room. Her subsequent condition was entirely satisfactory.

TRACHELORRHAPHY AND PERINEORRHAPHY

Case II. Mrs. H. aged 30, married, cervix badly lacerated on left side as high up as vaginal junction, lips of wound somewhat everted and hypertrophied, edges rough, granular, profusely secreting mucus and pus, patient bed-ridden since confinement nine months pre-

vious, general health greatly depreciated and nervous system broken down.

Perineum torn back to rectal septum during previous labors. The anterior and posterior vaginal walls relaxed and projecting through vulvar opening when in the erect position or during straining from coughing or vomiting. Pelvic circulation disturbed and sluggish, the vaginal tissues having a dark venous hue as if waterlogged with stagnant venous blood. The indications for the operation were as pronounced as one could find; under chloroform anæsthesia, the cervix was repaired with carbolized cat-gut suture, sizes No. I and No. IV being used. The perineum was next denuded and closed with the same suture; at the end of eight days union was complete along the entire perineal line of suture; no attempt was made to ascertain condition of cervix at this time. Hot water injections were employed twice daily after 5th day. Upon examination of cervix on 14th day union was found satisfactory. The suture had disappeared by disintegration, only filaments being found in the vagina. The subsequent progress of the case has been good, the patient being able to resume her domestic duties and continues to improve in health.

RUPTURE OF PERINEUM THROUGH RECTAL SEPTUM.

Case III. Mrs. McC., aged between 30 and 35 years, married, gave birth to second child with great difficulty; infant 5 months old at time of operation. Physician in attendance at time of delivery failed to repair the tear, which extended 1½ inches up the rectal septum and through entire perineum. The condition of patient soon become extremely distressing. She had lost all control of her lower bowel and was being daily reduced by diarrhœal discharges. I was invited to see the patient in consultation and then requested to operate.

Under chloroform anæsthesia the parts were carefully denuded and then closed with carbolized cat-gut, sizes Nos. I and IV being used. The line of union was found complete at end of 8th day, with single exception of one point at upper and inner edges of the vaginal wound where slight sloughing occurred. A small opening not larger than a quill remained unclosed. After evacuation of bowels and use of hot water for several days, closure at this point took place. Subsequent results have been satisfactory, the patient having been restored to health and comfort and to usefulness in her family.

It may be asked with perfect propriety, Are the results here related in any respects exceptional? Do not similar results follow the use of the silver or even silk suture? The first interrogatory I answer in the negative, the second in the affirmative.

No claim is made for the superior excellence of the animal suture upon more than two points: First, it is non-irritating; second, it is self-removable. If it can be shown to have all the other good qualities of the silver wire and these additional advantages it becomes *par excellence* the suture for plastic work. The procedure necessary for the removal of the silver suture after operations within the vagina or upon the perineum is in many cases almost as troublesome as that required for placing them. There are few patients who do not complain bitterly of the pain induced by the attempt to remove the suture, and many will not assent to its removal without an anæsthetic. In such instances the details of an operation must be gone through with to a large extent, for the operator needs two well-trained assistants and must give considerable time and attention to his patient during and immediately after anæsthesia. Many patients as they lie in bed and think over the pain and distress attending the removal of the wire suture, anticipate this work upon the part of the operator with holy horror. I have had more complaints from patients from this source than from the dread of the primary operation. Now when I tell them that the suture is self-removable, their feelings of dread are removed and cheerfulness follows the operation as soon as the distress of anæsthesia subsides.

Upon one occasion I attempted to

close the cervix and perineum during the same anæsthesia, and in this instance I used the wire suture. After removing the wire from the perineum, it was fully three weeks before I could use a speculum and remove the sutures from the cervix. I then had to employ an anæsthetic. The long presence of the wire in the cervix had caused it to imbed so deeply the in tissues that I had considerable difficulty in removing the suture. This so discouraged me that I decided not to operate again in this way. Since I began to employ the cat-gut suture all such difficulties have been removed, both operations are practicable at a single anæsthesia, good results follow and the comfort to both patient and physician is—so far as my experience goes—greatly intensified.

In simple perineal operations the wire suture is disagreeable and often painful from its mechanical presence during the entire time it remains *in situ*. Its removal is always attended with pain unless an anæsthetic is employed. Local anæsthesia with cocaine has not been sufficient in my experience to overcome this pain. Silver wire does not yield to pressure to the same extent as the animal suture, and changes in the positions of the body are much interfered with in consequence, when it is used. This is to some extent an objectionable feature. The greater the amount of motion allowed a patient within certain limits, the greater the comfort of the horizontal position. After using the cat-gut suture, I tie the patient's limbs together and allow her to roll from side to side at will. This lateral roll works no disadvantage and occasions no discomfort; it is a positive gain.

I have previously referred to the advantages of the silver suture, I have shown its disadvantages in contrast with a self-removable suture, such as the cat-gut; I may now recite all of the objections urged against the cat-gut or animal suture.

First. It is claimed that it is less easily adjusted than silver wire, that the edges of the flaps approximate with less neatness and ease of manipulation, that the knot is liable to slip or loosen in attempts to tie. These defects are admitted, but I claim that they can be entirely overcome with care and painstaking work. I have no difficulty in bringing the flaps in proper apposition or in holding them there until the suture is carefully tied or buttoned. This may be done by using a vulsellum forceps, a tenaculum or a temporary wire suture. The knot will not slip or untie if it is looped properly. I use the surgeon's loop and make three ties. The ends of the suture are left from 1½ to 2 inches long. To prevent the knots from untying, I cover the suture and wound with iodoform, which, in addition to its healing and antiseptic properties, dries the suture and securely holds the knot. I have time and again been assured that the suture gave away at points distant from the knot, for in examining the disintegrated suture after its removal, the knot was observed to be intact.

Second. It has been claimed that the cat-gut suture was not strong enough for cervical and perineal operations, and that it disintegrated before primary union could take place. My experience disproves this assertion. I find that the suture is sufficiently strong for this work if it is carefully selected and tested before being used. The best results will be secured by using a suture of different sizes. I vary the size according to the amount of tension or strain imposed on the suture. In very fine plastic work, a very fine suture should be used and *vice versa*. A properly prepared cat-gut suture will hold *in situ* from 4 to 14 days. Primary union will take place within 48 to 72 hours in the majority of cases of cervical and perineal operations, so that the self-removable suture will prove sufficient for these procedures. My experience with the cat-gut suture in operations upon the cervix and perineum has been so extremely satisfactory that I now consider it superior to any other suture material of which I have knowledge. It has given me uniformly good results, and with all with such comfort to my patients that I cannot but regard it the material *par excellence* for intra-vaginal plastic work. I accept only

two procedures in which, upon theoretical grounds, the metallic suture is to be preferred. I refer to vesico and recto-vaginal fistulæ. Here we have conditions to contend with which demand a strong and non-absorbable material. My experience with the animal suture in these operations is *nil*, therefore I have no testimony to offer.

The fairminded surgeon is one who rides no hobbies, and who aims to take advantage of every means which will lead up to successful results. It is my habit to study all the indications and surroundings in my operative work, and I am free to confess that I will not rely implicitly upon the animal suture in every case. There are conditions met with in the cervical and perineal operations in which I would prefer the metallic suture, though I will never again use the metallic suture for the cervix when the perineum is closed during the same anæsthesia.

In a cervix operation performed during the month of January, I used cat-gut at every point save the stitches on either side of the cervical orifice. There was considerable cicatricial tissue in the flaps and much induration. Tension was strong and I was mistrustful of the animal suture, hence used the silver wire. When I came to remove the wire stitches on the eighth day, the animal suture had done its full duty and union was complete at every point where it was used. The wire, on the contrary, had cut out and given only a partial union. Whilst then conditions of tension may in some cases demand the use of a non-absorbable suture material, my experience encourages me to place more and more confidence in the cat-gut, and this confidence is growing with each operation.

In presenting the claims of the cat-gut suture I have no intention of appearing in the rôle of an originator. Others have doubtless worked with this suture material with as much comfort and success as myself, but if I can induce those who prefer the silver suture to give the cat-gut a fair trial, I feel sure that my words will not be in vain.

In conclusion I offer the following summary:

1st. The cat-gut suture properly prepared and selected will be found sufficiently strong and durable for operations upon the cervix and perineum in the vast majority of cases.

2d. With careful manipulation it can be placed *in situ* with sufficient neatness and fitness to secure perfect union of the denuded surfaces by primary intention.

3d. It is self-removable, and therefore does away with the necessity of further interference after union has been secured.

4th. It gives no distress while union is in progress.

5th. It makes the operation of trachelorrhaphy and perineorrhaphy during the same anæsthesia a very simple procedure.

IMPACTED RETROVERSION OF THE GRAVID UTERUS, WITH A CASE.

BY C. O'DONOVAN, JR., M.D.
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On August 12th, 1888, I was called hurriedly to see Mrs. F., aged 35, white, married, of Irish parentage, the mother of six children. I found her pale and thin, with an anxious countenance, looking so exhausted and exsanguine that I thought at first, for I had never seen her before, that I had a case of hæmorrhage of some kind to deal with. She told me that her family physician had been treating her during the past ten days for violent pelvic pains, that had been recurring now and again at irregular intervals during that time; these had gradually become less and less frequent, and were now altogether absent; but during the last three days a tumor had developed in her abdomen, and had grown rapidly, in spite of all that her physician could do.

In answer to my inquiries, I learned

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that she had missed three periods, but did not believe herself pregnant, though subsequently she proved to be so; she had had a slight flow six weeks ago, subsequent to over exertion, but this passed off after a few hours, and she had paid very little attention to the occurrence. About a week ago she began to have pains in her pelvis, and lower abdomen, which seemed to be caused by some trouble situated in or about the bladder, for, as the pains became more violent, she noticed that a greater effort was required for micturition, and that each time fewer and fewer drops of urine could be expelled; four days ago she failed to urinate, notwithstanding the most violent efforts, accompanied by excruciating pains, and she had not since passed more than a few drops from her bladder. During this time she suffered intensely, but to-day she felt easier. Her bowels had acted fairly well, though she was somewhat constipated. Inspection of the abdomen revealed a tumor, reaching from the symphysis pubis to within two inches of the umbilicus, rising prominent from the belly, and bulging forward, even while she lay on her back. It presented a hard, elastic feeling, when touched, and gave a perfect wave of fluctuation, even when tapped as delicately as possible, rendering it certain that I had to deal with a tense cyst of some sort. As the woman was quite frail, and the abdominal walls were very thin, by causing her to flex her thighs on her body, thus relaxing completely the abdominal muscles, I could easily push my fingers around the tumor at the sides and above, clearly defining its globular mass. I next attempted to introduce my finger into her vagina, but encountered unexpected resistance; the vagina was almost obliterated by a tumor, occupying Douglas' cul-de-sac, which was large enough to fill the entire pelvis so completely that I could make out nothing more than I could feel by the vagina, except that the overcrowded condition of the pelvis was shown more clearly. Though I doubted her report about passing no urine for four days; she may have told the truth, as the weather was quite hot and her skin was acting freely; however I did not allow many minutes to pass before I had introduced a long rubber catheter into her bladder, through which slowly flowed more than two quarts of very dark urine, having a strong ammoniacal odor; during this process the abdominal tumor gradually collapsed, and she complained of a good deal of pain, though she felt much relieved at its completion. Having removed this obstruction, I expected to make a satisfactory vaginal examination, but was disappointed when I found matters very little improved, the only advance that I could make was that by bi-manual examination I could satisfy myself that the uterus was retroverted, but whether the mass in Douglas' cul-de-sac was the fundus alone, or the fundus dragged back by a fibroid, or the pregnant uterus, I could not distinguish. So, after ordering dessertspoonful doses of Castor oil, to be given at intervals of four hours, until her bowels had been freely moved, I left her resting quietly.

When I visited her the next day, I found that the oil had acted nicely, giving her several movements containing many hard lumps of fœcal matter, but she had passed no urine since I had seen her, so I again used the catheter, before examining her by the vagina. The condition of her pelvis had changed somewhat since the day before, the evacuation of her rectum having released the uterus so that it could be moved easily without pain, but I could not push the enlarged fundus through the ligaments into its proper position; after each effort it would fall back into the recto-vaginal pouch from which it had been lifted; it seemed to be about as large as a good sized orange, but contained no fibroids that I could distinguish. I instructed her sister in the use of the catheter, which she readily learned, and ordered that it be used twice a day, if she failed to relieve herself; also that she should use the hot vaginal douche each night and should keep her bowels moving regularly with Castor oil, and that half a gallon of warm water be injected into her bowel each night and morning; as she was very pale and anæmic, I

directed Blancard's pills, one after each meal. After this I saw her every two or three days, finding her better each day, though compelled to use the catheter regularly, until September 1st, ten days after my first visit, when she told me that she found herself able that morning to pass her water without difficulty, and felt relieved also of a feeling of discomfort and weight in the pelvis. Upon examining her, I was surprised to find that the uterus had risen spontaneously out of the pelvis, and could be felt above the symphysis: the os remained rather high in the pelvis, but was easily reached, having a deep, bilateral laceration. Her other pelvic organs seemed perfectly healthy.

The interest in this case arises from two points:

1st. The diagnosis of the nature of the tumor, and

2nd. The spontaneous return of the uterus to its proper position after the repeated failure of efforts made to replace it by the finger.

Since writing this account of my own experience, I happened, by a mere accident to come across a case so similar that I must beg to be allowed to relate it. It is recorded by the late Dr. Samuel T. Knight, in the *Maryland and Virginia Medical Journal*, for January, 1861. He says of the case:

"Externally a large tumor could be felt extending nearly to the umbilicus, and internally the vagina seemed completely occupied by the same tumor. The os and cervix uteri could not be reached. The examination was continued in several ways most attentively, with a view to discover the nature of the disease, but no separation between the tumor in the pelvis and that in the abdomen could be distinguished. Notwithstanding the stillicidium urinæ, a female catheter was introduced into the urethra to the usual depth, through which only a small quantity of highly ammoniacal urine flowed.

The ordinary expedients of practitioners were resorted to, viz: cathartics and anodynes—both gave temporary relief, but only to the mind. An eminent accoucheur of this city was called in consultation, and, by our united counsel, the patient was treated for several days, secundem artem, with leeches, fomentations, attempts at catheterism, full anodynes, etc.

To Dr. F. E. Chatard belongs the credit of relieving the patient and demonstrating to us what we should have known. The prominent symptoms were, large abdominal tumor, giving the appearance of advanced pregnancy; apparently the same tumor continuous low down to the floor of the pelvis; os and cervix uteri perfectly concealed; sanguineous discharge from the vagina; bowels responding to cathartics. Catheter repeatedly introduced through the urethra bringing away fœtid urine in small quantity. Dr. Chatard introduced a male catheter into the *bladder*, and the amount of water withdrawn proved the overdistention of this viscus. The os tincae could then be felt looking upwards and forwards, and sufficiently dilated to permit the constant flow of blood. The uterus was completely retroverted, and being replaced, expelled during the next day a three months fœtus. All subsequent efforts to rally the patient were unavailing."

The similarity of these cases is striking, the only difference being that the woman whom Dr. Knight attended suffered from a constant dribbling of the urine, while my patient suffered from almost absolute retention. The retroverted uterus, aggravated by an impacted mass of fæces pressed down upon the misplaced fundus, acting as a valve by pressing against the urethra; of course all straining efforts only rendered the situation worse, by crushing the pelvic viscera into greater confusion. Now that the case can be looked at in all its aspects, the diagnosis seems easy of access, but when I first uncovered the woman's abdomen, notwithstanding her history, given clearly enough, and pointing directly to retention of urine, I confess I thought that I had some other form of abdominal tumor to deal with, for this reason, that I had thought no bladder could become so over-distended, and so prominent a tumor as that one showed. As the woman was quite thin, and had been several times

delivered of children, the abdominal muscles were quite flabby, and the belly wall dipped into each iliac fossa in such manner that the bladder looked exactly like a medium sized ovarian tumor, having the characteristic oval shape, and presenting, even to the eye, the appearance of a tense cyst, which was verified the minute that palpation was employed, for the elastic sensation, and the perfect wave that followed the lightest tap proved conclusively the fluid nature of the tumor. The introduction of the long catheter, and the immediate subsidence of the tumor confirmed the diagnosis; but to this day I am ignorant of why such distention of the bladder did not cause more pain than my patient complained of. She had had pains, and violent ones, but they had passed entirely away, and when I saw her, she complained of no uncomfortable feeling except the sense of weight and the fulness of her abdomen; yet, as the urine flowed away, and the bladder collapsed, she complained again of a return of the cramps. Could it be that the power of sensation had been destroyed by the extreme distention of the viscus? This was the point that was most apt to mislead in making the diagnosis, for one usually expects the pain to increase in direct ratio to the increase in the size of the organ distended. Such is the case with the bowel, with the stomach, and with the bladder, itself, and existed in this case, up to a certain point, after which, though the distention went on increasing, the pains became less frequent and more tolerable until finally they ceased entirely. In the case related by Dr. Knight the pains are described as excruciating, as they had been in my patient, but she found some relief through the constant stillicidium.

That this retroverted gravid uterus, after resisting efforts at reposition, as strong as I dared make them, for the dread that I might be dealing with such a condition was always present notwithstanding her assurance that she could not believe herself pregnant, should rise above the obstructing ligaments spontaneously after a few days of such simple treatment as rest in bed and vaginal and rectal injections of warm water twice daily, is a matter that merits consideration. I had attempted to replace it while she lay on her back, but failed; I tried next while she was in the genu-pectoral position, giving full time for the forward displacement of all the abdominal and pelvic viscera, and admitting atmospheric pressure by retracting the perineum; this alone having failed to push the uterus into its proper place, I assisted rather forcibly with two fingers in the vagina, and after the failure of this method, while the woman retained the same position, I tried unsuccessfully to accomplish my purpose by inserting my finger into the rectum, hoping to gain a longer leverage. As matters turned out I was very fortunate in not using any intra-uterine method of reposition, as I was tempted more than once. My astonishment may readily be understood when I found, a few days after the failure of these efforts, that all the pelvic organs were in their normal positions without any interference. This occurrence, however, fully demonstrates the utility of warm injections, particularly into the rectum, for to that influence more than any other I am inclined to ascribe the favorable termination of the case, by bringing about relaxation of the ligaments that presented but a few days before an impassable barrier.

This subject has been treated more or less by Skene,* Baker Brown,† Barnes,‡ Leishman, § Playfair, ‖ Schroeder, ¶ Cazeaux,† and Graily Hewitt,‡ all of whom give the details of treatment to be used in such cases, consisting in efforts at reposition, made generally with the woman in the knee-chest position, which by itself sometimes rectifies the malformation. If failure follows pressure in the vagina, then the finger must be introduced into the rectum,

*Diseases of Women, p. 498.
†Surgical Diseases of Women, Lon. 3 1 Ed., p. 271-272.
‡System of Obstetric Medicine and Surgery, Phila., 1885, p. 256, etc.
§System of Midwifery, Phila., 2nd Amer. Ed., 1875, p. 246-251.
‖System of Midwifery, Phila., 4th Amer. Ed., 1885, p. 217-220.
¶Manual of Midwifery, New York, 1873, p. 119-122.
†Theoretical and Practical Midwifery, Phila., 5th Amer. Ed., 1858, pp. 532 539.
‡The Pathology, Diagnosis and Treatment of the Diseases of Women, New York, 1883, Vol. I. p. 373, etc.

which manoeuvre is frequently successful, as affording a better chance for pushing upthe fundus, all, however, caution us against using too much force, least abortion be brought about. As a last resort, if the woman be very much exhausted, and death seems imminent, some authorities advise the introduction of a sound, so that the uterus by emptying itself may be more readily replaced; this, however, I consider a desperate measure, and unlikely to benefit the patient much, as the abortion from the impacted uterus would occasion such shock as would most likely be followed at once by the death of the woman. Spontaneous reposition is also mentioned as a termination of these cases after the bladder has been emptied; this seems to have occurred in my case, but I am satisfied that this result was aided very much by the hot rectal injections, for so firm and unyielding were the ligaments when I tried to replace the uterus, that I cannot believe it possible for the uterus to have slipped through them unless they had been rendered soft and more pliable by the action of what was, in effect, a rectal poultice. The most complete study of this complication of pregnancy may be found in Ashwell,* who gives references to many authorities on the subject who had written before him, and relates several very interesting cases, beginning with Dr. William Hunter's classic case and another, from Gooch's Lectures, whose bladder burst, causing her death in a few hours, after the trouble had been recognized and treated unsuccessfully, owing to the failure of the catheter to empty the bladder, and the refusal of the patient to allow supra-pubic puncture when it was proposed. From another case he drew off nine pints of urine, but failed to reduce the displacement until he had inserted his entire hand into the rectum, the patient being in the knee-chest position, and then only after exerting considerable pushing force. This patient bore the operation well, and was safely delivered at term of a living child. From another woman, aged forty-one, and in her eleventh pregnancy, Dr. Ashwell drew off eleven pints of ammoniacal urine, after which he succeeded in replacing the uterus, but five days afterward she aborted, at three months, and died in ninety-six hours. So great had been the distention of bladder in this case that the catheter was required even after reduction of the misplacement of the uterus, the bladder seeming so remain paralyzed as long as she lived. It will sometimes happen, however, that every effort at reposition will fail, the uterus having become so large, from an advanced pregnancy, that it cannot be forced into the abdominal cavity, in which case obstetricians advise the induction of premature labor by rupture of the membranes; if, owing to the complete retroversion of the uterus, the os cannot be reached, some authorities advise that the uterus itself be punctured with a trocar, introduced by way either of the vagina or rectum, as seems best and most convenient to the operator, allowing the amniotic fluid to drain away and thus bringing on the labor prematurely. This has been done with success by a number of surgeons,—with success, as far as induction of labor was concerned, but not always without very very serious complications following the operation. Ashwell relates such a case, from the practice of Mr. Baynham, which developed cellulitis in the recto-vaginal septum, and ran a tedious course during seven weeks. The punctures in this case happenod to perforate the placenta twice, but there was no hemorrhage. This woman must have had a fine constitution, for she recovered perfectly in spite of all she had suffered, menstruated for the first time about two weeks after the operation, and remained well thereafter. From this we may conclude that:—

1. Impacted retroversion of the gravid uterus may become a serious complication of pregnancy, and even cause the death of the patient.

2. Emptying the distended bladder is often followed by spontaneous reduction of the displacement of the uterus, yet it

*A Practical Treatise on the Diseases Peculiar to Women. 2nd Amer. Ed. Phila., 1848. Pp. 418-430.

is better not to wait for such possible action, but at once to replace the uterus as soon as the bladder has been emptied.

3. This is best done with the patient in the knee-chest position, by two fingers in the vagina, or better, in the rectum, where the whole hand may be used, if necessary.

4. In certain cases matters may be facilitated by the use of a rectal injection of hot water, acting upon the parts as a poultice.

5. If all attempts at reduction fail, puncture of the membranes, either by way of the os, or even through the uterus itself may become necessary, as a final resort.

311 W. Monument Street.

Correspondence.

VARICELLA IN THE ADULT.

Dover, Del., May, 4th, 1889.

Editor Maryland Medical Journal :

Dear Sir:—Please give me your opinion on chicken pox in adults or grown persons, have any of you or any good authority ever seen a case? I am getting statistics on varicella or chicken pox and am not able to find one recognized authority that has ever seen a case. Now if there are any cases on record I want to know by whom they were so diagnosed. Also I want the best statistics on small pox, please let me hear from you, and oblige,

Thos. O. Clements, M. D.

[Will some one kindly answer this question. Ed.]

IDIOSYNCRATIC QUINIA ERUPTIONS.

Editor Maryland Medical Journal :

In the Maryland Medical Journal May 4th, 1889, Dr. Wirt A. Duvall has reported a case of scarlatiniform eruption following the administration of quinia in confinement. These idiosyncratic quinia eruptions, are, he says, rare, and according to my experience they are *very rare.* I can only recollect of one case in my practice, and it resembled in its eruptive qualities a case of rubeola. It occurred about two years ago in a child whom I was, at the time, treating for remittent fever, and while I was practising in Virginia before I located in Baltimore. It was a matter of some interest to me as I had been practising for some years in a very malarial section of the South and at one time used up in a few months about twenty-five ounces of quiniæ sulph., which I dispensed myself, not counting what I ordered through my prescriptions, and had given it in quantities ranging from about 170 grains to thirty in 48 hours according to the malignancy of the malarial affection.

Alex. L. Hodgdon,
1235 Lafayette Avenue,
Baltimore, Md.

MEDICAL AND CHIRURGICAL FACULTY.

Editor Maryland Medical Journnl :

I fear I cannot give an encouraging report in reference to county meetings of the State Faculty. The plan was tried a score of years or more ago. I think it was about 1858 or 1859, a session was held here. We had a pleasant time and good papers presented but the physicians of the county showed scant interest and no one joined the Faculty. In Allegheny County I have been told the result was similar and as you know the Faculty was afterwards reorganized and became practically a Baltimore Society. I scarcely think it can be helped in any other way than by the formation of County Societies from which delegates could be sent. The Frederick County Society died 35 years ago chiefly from ethical quarrels. I believe there is material there for good work if any plan could be devised by which the discus-

sions could be limited to medical science and art without farcical attempt at the correction of medical morals, and I think I will sometimes stir up our younger brethren in the matter. Sorry I cannot write more encouragingly; still if the Faculty should determine to try it nevertheless I will with pleasure co-operate in any way in my power.

Society Reports.

THE GYNÆCOLOGICAL AND OBSTETRICAL SOCIETY OF BALTIMORE.

STATED MEETING HELD MARCH 12, 1889.

Dr. T. A. Ashby, First Vice-President, in the Chair.

Dr. T. A. Ashby read an article entitled

THE ANIMAL SUTURE IN INTRA-VAGINAL PLASTIC SURGERY.

(see page 44.)

Dr. W. E. Moseley had tried various forms of sutures and his conclusions were about as follows: Taking cervix operations as a whole, the metallic was far preferable to the animal suture. The only class of cases where the animal suture was permissible was when the lips were thin and easily brought together. When any amount of cicatricial tissue had to be removed animal sutures could not be depended upon, as the tension hastened absorption, and even before any absoption had taken place they would stretch, so letting the denuded surface separate. In this respect silk-worm gut differs from the animal suture used. The edges of the denuded surface can be more perfectly adapted to each other with the metallic suture and the degree of tension more exactly estimated. He did not approve of tying animal sutures when used in cervix operations but thought they should be shotted, as by this means less traction on the ligaments is necessary, and the tension of the suture more readily regulated. Another advantage the metallic suture has is that it draws the denuded surfaces more smoothly into apposition while all animal sutures act like a draw string at the mouth of a purse.

In operations upon the anterior and posterior walls of the vagina, cat-gut sutures are often very serviceable and much more comfortable for the patient. In fistulæ the supporting, splint-like action of the metallic suture is often an advantage. In Dudley's perineum operation the suture is continuous and an animal tissue must be used. In Emmet's operation although animal sutures give good results the central suture forming the fourchette had better be of metal.

Of the animal sutures cat-gut is the most universally applicable and that which has been chromicized and then kept in Juniper oil the most reliable. Silk-worm gut is stiff and has a thin cutting edge and unless pretty thoroughly softened in hot water is liable to split when being tied.

Of the metallic sutures pure, carefully annealed silver wire is best.

In conclusion, he would not use animal sutures when there was much tension or when an exact coaptation of the denuded surfaces was necessary, as he believed silver wire would answer the purpose much better. If animal sutures were used in cervix operations they should be shotted and not tied. In operations upon the vaginal wall, near the vulva, they can be readily tied.

Dr. Wm. P. Chunn said that each suture could claim advantages, the animal suture need not be taken out, the metallic need not be tied. This is a great advantage, as in a case whose posterior cul-de-sac was opened, no knot could possibly be tied, but it was easily closed by the wire. The animal suture is best in the perineum, if it yields a little, as Dr. Ashby said, this being quite an advantage here. In the cervix the metallic suture is best if the parts are hard to reach, but if easily reached the animal suture is best. There is no use denying that the removal of metallic sutures causes pain.

Dr. H. P. C. Wilson said that he had always been so perfectly satisfied with his results with wire that he did not care to try new and unaccustomed materials, calling special attention to the great difficulty of approximating the edges in hyperplastic uteri unless the wire be used. If the ends are clipped short and turned down well they can give no trouble. In many cases the tension is great, and for this nothing is as good as the metallic suture. Seldom heard complaints on removal, and never gave an anæsthetic for this trivial operation. Preferred silver to all other wires. In the cervix he is sure that the metallic suture is by far the best, in the perineum the pain occasionally from hard, unyielding, sticking wire might lead him to give the catgut a trial.

Dr. T. A. Ashby said, in closing, that he began practice with a prejudice in favor of the metallic suture, but experience had taught him to prefer catgut. Within the last year he had used the wire in the cervix but twice. He admits that wire is sometimes the best in these operations, but not often, reviewed the remarks and explained just when wire might be best. Formerly he used half wire and half stitches of gut, but now uses gut alone. But one examination after the operation is sufficient to satisfy one of its efficiency. The catgut should be tested thoroughly before introduction. When the cervix is high in vagina, he ties with catch forceps. Appearance of wound is not as nice as with wire, but result is as good.

Dr. Charles O'Donovan, Jr., then read an article entitled

IMPACTED RETROVERSION OF THE GRAVID UTERUS, WITH A CASE.

(See page 48.)

How to Send Manuscript. — The best way to send manuscript is in a stout envelope long enough to hold commercial note-sheets without folding. A similar envelope, stamped and addressed for return of manuscript, should be enclosed. Before setting out to roll a manuscript always commit suicide.— *The Writer.*

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

Ninety-first Annual Session held at the Hall of the Faculty, Baltimore, April, 23, 24, 25, 26 and 27, 1889,

(*continued from page* 9.)

Dr. John Morris, President, in the Chair. Drs. G. L. Taneyhill, Robert T. Wilson and William B. Canfield, Secretaries.

(Specially reported for the Maryland Medical Journal.)

Friday, April 26th,—Fourth Day.

SECTION OF ANATOMY, PHYSIOLOGY AND PATHOLOGY.

DR. WM. H. WELCH, CHAIRMAN.

The Chairman took for his subject,

HYDROPHOBIA.

He said that although since Pasteur's first publication on this subject it has received the widest ventilation in medical journals, no apology is needed for a fresh critical review, so rapid are the additions to our knowledge and to such an extent does the estimation of the value of much of Pasteur's work depend upon results which can be determined only by the lapse of time. Although Pasteur's preventive inoculations against hydrophobia constituted the central point about which controversy has waged, it is not to be forgotten that Pasteur's discoveries and the investigations aroused by them have shed much light in many directions upon one of the most mysterious and fatal diseases. We are better able now than ever before to estimate the value of the recent study of rabies, and to consider the efficacy of the Pasteurian inoculations against hydrophobia.

Dr. Welch reported the results of post-mortem examinations, which he had made in three cases of hydrophobia in human beings. In one case he had made serial sections of the medulla ob-

longata, and pons from the 2d cervical nerve upward. The lesions in this situation were small hemorrhages, accumulations of leucocytes in large numbers in the perivascular lymph-spaces and in scattered foci in the neuroglia and thrombi composed of blood plates and of leucocytes in small blood vessels. These lesions were for the most part microscopical and their extent and distribution could be determined only by the examination of a large number of sections from different parts. The lesions were especially well marked in and near the nuclei of origin of the spinal accessory pneumogastric and glosso-pharyngeal nerves and in the motor nucleus of the trigeminus. Cases have been reported in which even more extensive lesions than these have been found, their severity depending apparently in a large measure upon the duration of the disease. While it cannot be claimed that these lesions are peculiar to hydrophobia or by themselves suffice for its anatomical diagnosis, it is incorrect to suppose that hydrophobia is a disease without demonstrable anatomical lesions which have a manifest relation to the symptoms of the affection.

Far more important than the additions to our knowledge of the pathological anatomy of rabies following Pasteur's discoveries, are the contributions to a better comprehension of the causation of the disease. Before Pasteur's publications on hydrophobia dating from 1881, about all that we knew of the virus of rabies was that it is contained in the salivary glands and their secretion and that infection often follows the bites of rabid animals. We now possess valuable information concerning the properties of the rabid virus, its distribution in the infected body, the manner of its transmission, the singular differences in its action according to the seat of its inoculation and the means for producing immunity against its invasion.

Although there is no room to doubt that the infective agent in the virus of rabies is a micro-organism, no actual demonstration of this organism has yet been made. From material obtained from a series of rabbits, which were inoculated at the Pathological Laboratory of the Johns Hopkins University with hydrophobia virus obtained from the medulla oblongata of a man dead of the disease, and which served to confirm the statement of Pasteur as to the behavior of these animals when inoculated with the rabid virus, efforts were made to demonstrate, both in the tissues and by means of culture some specific micro-organism, but with entirely negative result. While we are not acquainted with the specific organism causing hydrophobia, we know many of its properties.

The virus of rabies is destroyed by comparatively low temperature, exposure for an hour to a temperature of 50°c. [122°F.] sufficing for this purpose. It is killed in a short time by drying, certainly within four days when exposed in thin layers capable of rapid desiccation. It is destroyed by exposure to the direct rays of the sun even when surrounded by conditions preventing much elevation of temperature. According to Bales the virus is more resistant to the action of corrosive sublimate and of carbolic acid, than most micro-organisms, but it usually loses its infectious properties after exposure three hours to the action of 0.1 per cent. sublimate or 1.0 per cent. carbolic acid solution. Galtier has pointed out the important fact that the virus of rabies may be demonstrated after 44 days and perhaps longer in the cadavers of buried animals. A practical means of preserving the virus is to place the brain or cord of the infected animal in pure glycerine, which may be diluted with water and should be occasionally changed.

It has been ascertained that the occurrence of infection with rabies depends largely upon the part of the body and the character of the tissues into which the virus is inoculated. The disease always develops after inoculation of the virus into the brain or upon the surface or into the eye, the period of incubation being shorter and more definite after subdural inoculations. Inoculation into the substance of nerve trunks appears to be equally successful in rabbits, but somewhat less certain in dogs, although even with the latter, inoculation

into the pneumogastric nerves does not fail. Intra-venous injections do not produce the disease in ruminants unless very large quantities are used, and may fail in rabbits, and especially in dogs. Especial importance attaches to the behavior of subcutaneous injections of the virus of rabies. Dogs often resist infection from the injection of considerable quantities of even the most intense virus into the subcutaneous tissue. Ferran's supersensitive method of producing immunity in human beings is to inject at once the strong virus into the subcutaneous tissue and this has been done in over 200 cases without injury. If the injections be made into muscular tissue, infection is more likely to follow. Di Vestea and Lagari have shown that while simple subcutaneous injections are often unsuccessful in producing rabies, the application of the virus to the divided ends of nerve filaments in a cutaneous wound is generally efficacious in causing the disease. Although deep and severe bites of rabid animals are the most dangerous, hydrophobia may result simply from a mad dog licking a scratch in the skin.

One of the most important discoveries of Pasteur is the demonstration of the fact that in animals or human beings, which have died of hydrophobia, the virus is contained most abundantly in the central nervous system, and especially in the medulla oblongata. It is found constantly also in the salivary and lachrymal glands, sometimes in the pancreas, but it is usually absent from the blood, kidneys, spleen and liver. Only exceptionally is it present in the mammary gland and the milk. It is very rarely transmitted to the fœtus through the placenta.

There has been considerable discussion as to the manner in which the virus is conveyed from the seat of inoculation to the central nervous system. The evidence points to the transmission of the virus along the nerves, in fact it is claimed by Helman and others that the virus is capable of multiplication only in nervous substance. Roux and others have found the virus present in the nerves of a bitten extremity when it has been absent in corresponding nerves of the opposite side. By killing animals at the proper period. it has been ascertained that after inoculation in the tail or posterior extremities the virus makes its appearance in the posterior part of the spinal cord sooner than in the medulla oblongata, while the reverse holds true when the inoculation is made in the head or anterior part of the body. These observations taken together with the inefficacy of intravenous injections, and the absence of the virus from the blood, lead to the conclusion that the virus passes along nerve trunks, although we have no information as to how this is accomplished.

It is a significant fact which should be remembered in judging the results of Pasteur's treatment, that there is a period of so-called latent development of the virus in the central nervous system. In rabbits inoculated with the strongest virus (virus fixe) the period of incubation is six days, but as early as the fourth day the virus has been found in the medulla oblongata. Doubtless therefore in human beings the virus is present for a longer or shorter period in the central nervous system before any characteristic symptoms appear. Careful observation has shown that in rabbits. this period is not really a latent one, but is accompanied by elevation of temperature, increased frequency of respiration, slowing of the pulse rate and loss of weight.

Dr. Welch said that there can no longer be any question that it is possible to render animals immune against rabies both before and after inoculations, which would otherwise cause the disease. The independent and careful experiments of Ernst in this country are free from all partisan bias and have amply confirmed the statements of Pasteur on this point. The methods employed by Pasteur for protective inoculation against hydrophobia have been so often and so fully described in medical and other journals that Dr. Welch did not consider it necessary to repeat the description on this occasion. Those inoculations are the most effective in preventing the disease which are undertaken soon after the reception of the

poison with a large quantity of virus, and with the speedy employment of material containing the strongest virus (virus fixe). Animals may be rendered immune by single injections into the blood or the subcutaneous tissue of a large quantity of strong virus, whereas dogs which are bitten by mad dogs, and which do not develop the disease, as so often happens, are not left immune. Dogs which have once been rendered immune against rabies may preserve this immunity for at least two years, and doubtless for a longer period.

Pasteur attributes the immunity to the action of some substance which he calls "matière vaccinnale" contained in the virulent material, but not identical with the micro-organism causing rabies. That immunity against infectious diseases may be secured by the injection of chemical substances produced by the growth of specific bacteria, was first demonstrated by Salmon and Smith in the case of hog-cholera and has been subsequently demonstrated by Roux and Chamberland for malignant œdema and by Wooldridge for anthrax. It has not yet been found possible to prove conclusively the correctness of Pasteur's supposition in the case of rabies, but there is much which speaks in its favor.

Encouraged by the results of his experiments upon animals, Pasteur in July 1885 first applied to a human being his method of preventing hydrophobia by successive inoculations of the virus contained in the rabbit's medulla subjected to drying for different periods. During the years 1886, 1887 and the first half of 1888, there have been treated under Pasteur's supervision either by the simple or the intensive method of inoculation, 5,374 persons who have been bitten by animals either proven or suspected to be rabid. The mortality from hydrophobia including even the cases which developed within a day after the cessation of treatment was in 1886, 1.34 per cent., in 1887, 1.12 per cent. and in 1888, 0.77 per cent. If the fatal cases which developed within a fortnight after the end of treatment, and in which there is reason to believe that the inception of treatment was too late, be excluded, the mortality of 1886 falls to 0.93 per cent. for 1887, to 0.67 per cent. any for 1888, to 0.55 per cent.

Dr. Welch considered the various objections which have been made to Pasteur's methods and to the value of his statistics. Some of these objections are of a purely hypothetical nature. Much force has been attached to von Frisch's experiments which seemed to some to invalidate the scientific basis of Pasteur's method of treatment. Von Frisch claimed that it is imposible to render animals immune after the reception of the virus of rabies in a manner certain to produce the disease. In opposition to von Frisch it has been demonstrated by Pasteur and others that in a large proportion of cases the development of rabies may be prevented in dogs which have been inoculated beneath the dura mater with the strongest virus. The treatment, however, must not be deferred under these circumstances later than the second day, and must be by the intensive vaccinations. Bardach succeeded in this way in saving 60 per cent. of the dogs inoculated beneath the dura mater. This test is evidently the most severe one to which Pasteur's preventive treatment can be subjected, one far more severe than is required to meet the ordinary channels of infection with rabies. It must be admitted therefore, that Pasteur's treatment rests upon a satisfactory experimental basis.

The criticisms raised against drawing favorable conclusions from the large mass of statistics published by Pasteur have been many, but the most important are, that we are ignorant of the mortality following the bites of rabid animals, and that there are included in Pasteur's statistics an indeterminate number of persons bitten by animals that were not rabid. As regards the first point, there are careful collections of statistics which show an average mortality of about 15 per cent. (Leblanc, Dujardin-Beaumetz, Horsley). All admit that the bites by rabid animals on the head and face furnish a much higher death rate than this, it being given as 88 per cent. by Brouardel. To meet the second criticism, Pasteur's statistics, which are pub-

lished monthly, are arranged in tables which embrace *a.* persons bitten by animals proven experimentally to be rabid. *b.* cases in which the existence of rabies is certified by a veterinarian. *c.* cases in which there is reason to suspect rabies in the animal. Pasteur's statistics for class *a*, that is for persons bitten by animals proven experimentally to be rabid for the years 1886, 1887, and the first half of 1888, yield a mortality from rabies of 1.36 per cent. or, if those who died within a fortnight after treatment be excluded, of 1.09 per cent.

Dr. Welch collected from Pasteur's reports for 1887 and the first half of 1888, those bitten on the head and face by animals proven experimentally to be rabid. There were 59 cases with 4 deaths from rabies during treatment, and 2 following treatment. Of the latter, 1 was seized three days after the cessation of treatment, and it is reasonable to suppose that in this case the treatment was begun too late. If this case and those dying during treatment be excluded, there remain 54 cases with one death, a mortality of 1.85 per cent.

In view of the universally conceded high death rate following bites on the head and face by rabid animals, this result leaves no room for doubt as to the efficacy of Pasteur's treatment, although it is not unfailing.

It is a sufficient answer to the assertion that has been made that Pasteur's intensive inoculations are dangerous in that they may actually produce the disease, that the mortality from rabies is strikingly smaller after the application of the intensive method than after the simple treatment.

(*To be continued.*)

The Philadelphia Medical Times, Medical Register and *Dietetic Gazette* have combined as one paper and appear weekly as *The Times and Register* with Dr. Wm. F. Waugh as editor.

Dr. Alfred B. Giles formerly of this city, but for several years practising in the county, has returned to Baltimore and has opened an office at 1340 Aisquith Street.

Dr. Henry Salzer has removed his office from 613 Park Avenue to 10 West Madison St.

MARYLAND MEDICAL JOURNAL

Weekly Journal of Medicine and Surgery,

WILLIAM B. CANFIELD, A.M., M.D., Editor.

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As the subscription of the Maryland Medical Journal to a large number of its subscribers begins at this time, bills will be mailed to those subscribers, who are respectfully requested as far as possible to remit promptly.

BALTIMORE, MAY 18, 1889.

Editorial.

MEDICAL AND CHIRURGICAL FACULTY. —At the risk of wearing a good subject threadbare, it is worth while to state that already a number of the city members of the Faculty have expressed a willingness and desire not only to have semi-annual meetings in one of the other cities of Maryland, but they are willing to contribute to the meeting by reading papers. Hagerstown has been mentioned as a favorable place, but of course that can be decided later. It would be well to have such meetings last one day only, and one thing the members here are united in, they will accept of no hospitality from the profession where they may meet. They know this has always been kindly and cordially extended, but as such entertaining must of necessity become a burden to those bearing it, it has been thought advisable to dispense with all such, so that in meeting from town to town, the resident profession will not feel it a wearisome duty to give hospitality to many of the profession whom they do not know. It is hoped, however, that the members of the Fac.

ulty in the State will as far as possible attend the one meeting, read papers and take part in the discussions. The committee on increasing the membership has already succeeded in getting from twenty to thirty names of good men who will join at the next annual meeting. A prominent member of the profession and State Faculty has given his opinion on the subject and his letter appears in the columns of this issue. If other members who read it will express their opinion it will be a great satisfaction to the members here.

Exploring the Brain Through Capillary Holes, with a Suggestion Concerning Brain Localization.—Considering the fact that trephining of the skull is an operation of some gravity requiring the services of a regular surgeon, and in view of the frequency with which the presence of abscesses, cysts, etc., are found post-mortem in the brain, in situations in which they might be reached by the aspirating needle, Dr. Souchon, Professor of Clinical Surgery in Tulane University, suggests (*New Orleans Medical and Surgical Journal*, May 1889,) a simpler, readier, less formidable and less dangerous method of searching for such fluid collections within the skull. He proposes that, after the hair has been snipped from the selected spot by the points of a pair of sharp scissors, and the scalp has been rendered aseptic, a hole shall be made through the soft parts of the scalp with a sharp-pointed, aseptic bistoury. Through this the bit of a watchmaker's drill is to be introduced, and a hole is to be drilled through the bone, the bit being guarded by a gauge to prevent it from penetrating into the brain substance. The bit is then to be withdrawn and the needle of a hypodermic syringe (*twice as large* as the ordinary needle) introduced into the brain. If a tumor is present, the needle will convey a feeling of resistance; if no solid tumor is present the needle must be gradually forced more and more deeply into the brain, the piston being retracted at intervals, in order that any liquid at the point of the needle may be withdrawn and examined.

Dr. Souchon has convinced himself by experiments on dogs that such a procedure is quite safe, He points out the advantage, that several points in the brain may be explored at the same sitting. He thinks the day will come, when the skull will be drilled in cases of cerebral hæmorrhage, and the blood aspirated here as in other situations. If Dr. Souchon's suggestions prove to be reliable, the method will be of great value in the application of electric currents to different regions of the brain, the insulated electrodes being introduced through the drill holes into the brain, and the effects of the stimulus noted, as regards muscular movements, sensations, etc. This would lead to great advances in cerebral localization.

Medical Items.

Dr. Isaac L. Adkins a prominent physician of Easton, died last week.

Dr. W. B. Gambrill, of Howard County, was injured last week, by a kick from his horse.

A report is current that Dr. Hunter McGuire had been called to fill the vacancy caused by the death of Dr. S. W. Gross.

The Johns Hopkins Dispensary opened on Monday with two surgical and five medical cases. The number has increased each day.

We are glad to be able to state that the *Gazette de Gynécologie*, which suspended publication on account of the illness of its editor Dr. Menière, reappeared on April 1st.

The State Board of Health held its quarterly meeting last Tuesday. The old questions of drinking water and sewerage were discussed.

It is a matter of great satisfaction to all who know him, that Dr. Fordyce Barker's claim to a Paris medical diploma has been fully substantiated by Dr. George H. Trousseau son of the great Trousseau.

The Garrett Sanitarium for Children, at Mount Airy, Carroll County, Md., will be open for children June 10, 1889. Children between two and twelve suffering with acute (not contagious) diseases, and those requiring surgical attention will be received. Free transportation is furnished. For further particulats apply to the physician of the Garrett Free Dispensary 107 N. Poppleton St., between 12 and 1 on week days.

Original Articles

LICENSE TO PRACTISE.

[Annual Address delivered before the Medical and Chirurgical Faculty of Maryland, at its 91st Annual Meeting, April 24th, 1889.]

BY WILLIAM OSLER, M. D.,

Professor of Medicine, Johns Hopkins University Baltimore.

Mr. President and Gentlemen:

I shall not offer any apology for making the "Licence to Practise" the subject of my address, as it is one in which all, high and low, rich and poor, lay and professional, are deeply interested. I am fully aware that it is a subject thought to require the delicate handling which we are accustomed to give to topics arousing heated discussion, and upon which diametrically opposite views are held. Still as *the* question agitating the profession to-day, it requires to be persistently and thoroughly ventilated, and those who have opinions on the subject should speak out in no uncertain tones. I have not had an opportunity of ascertaining the feelings of the members of this ancient and honorable Faculty on the question, one which touches closely I believe, certain vested rights of this body; but I have learned that three years ago a Bill for a State Board was rejected, so I presume the matter has often been before you. I am the more emboldened, therefore, to speak freely, knowing full well that I address men who have given time and thought to the problem, who know its difficulties, and who appreciate its importance.

In this country, a man can follow the vocation he pleases, subject only to such restrictions as may be necessary for the public welfare. The right to regulate the practice of medicine rests with the State, and, I believe it is acknowledged that this right comes within that general police power which extends protection to the life and limb of the citizens. At present, this power is very variously exercised in different States. In many, no regulations whatever exist. Any one who wishes, irrespective of qualifications, can practise. In a majority, however, there are restrictions which demand evidence on the part of the practitioner that he has studied, for a longer or a shorter period, at an incorporated school. Practically, the rule prevails that with a diploma from a chartered school, he can begin at once, without any hindrance other than that relating to registration. The educational duties of the State do not here extend beyond the system of common and normal schools, though, in a few, higher university work is also undertaken. Special education does not receive support from the public revenues. Schools of law, medicine, engineering, theology, all the special branches of study are private enterprises, chartered by the State and maintained by fees from pupils, or by the munificence of private friends. Certain privileges are granted to these institutions by the State, the most important of which, in the medical school, is the recognition of the diploma as a qualification for practice. So unsatisfactory, however, has this system proved, that there is on the part of the public, and of the profession, a growing sense of the necessity for radical changes as shown by the number of States in which bills have either been already passed, or have been before the legislatures dealing with the problem.

It is universally conceded that the basis of legislation is the necessity of protecting the people against the depredations of ignorant graduates and of quacks. The aim is to provide a minimum standard of qualification to be exacted of all persons who desire to follow the calling of physician and surgeon.

While we find legislatures everywhere willing to support enactments necessary for the safety of the public, they will not, (and it is right that they should not) support class legislation; and herein lies one of the chief difficulties.

If we look around upon those engaged in the practice of medicine, we find that an overwhelming proportion belongs to to the regular, or so-called old school. A second small division professes to follow the precepts of Hahnemann; while a third, still smaller, neither one thing

nor the other, but a little of both, professes a judicious eclecticism. These three bodies have schools, medical journals, and in each State a more or less complete organization. In the eyes of the law (which rightly disregards medical theories), all are equal. This unhappy division of the body medical is not limited to professional matters, but is complicated with ethical questions of the highest moment. The outcome of it all has been that there are hostile camps and bitter war.

The homœopathists, and the eclectics will, I think, concur in the necessity of a full and proper curriculum of study in the great branches of medicine. Anatomy, physiology, chemistry, histology, embryology, medicine, surgery, obstetrics, gynæcology, and medical jurisprudence know no "isms." The differences only become glaring when we touch the subject of therapeutics, a subject in which among members of each of the so-called schools the greatest individual differences of opinion exist. So strong, however, is the feeling (largely an ethical one), that the divergence of opinion on this one branch separates absolutely the different classes of practitioners from each other, nor do not say that this should not be so, while antiquated dogmas are professed in opposition to a rational and a free science.

We cannot, however, escape from the important fact that in the eyes of the law we all stand equal, and if we wish legislation for the protection of the public, we have got to ask for it together not singly. I know that this is gall and wormwood to many; at the bitterness of it the gorge rises; but it is a question which has to be met fairly and squarely. When we think of the nine or ten subjects which we have in common, we may surely, in the interest of the public, bury animosities and agree to differ on the question of therapeutics.

In connection with the license to practise, there are, it seems to me, three courses open: 1. A continuance in the plan at present, widely prevailing, which makes the college the judge of the fitness of the candidate; and State supervision is only so far exercised that the diplomas are *viséd*, and registered, if from legally incorporated schools. 2. The appointment by the State or by parties so deputed of a board of examiners which shall, irrespective of diplomas examine all candidates for the license. 3. The organization of the entire profession in each State into an electorate which shall send representatives to a central parliment, having full control of all questions relating to medical education, examination and registration.

These various plans are at present in operation in different parts of the Continent; let us see how they work.

And first of the colleges which have practically had a monopoly for years, as the diploma has carried with it the privilege of registration.

To all intents and purposes the medical schools of the country are private organizations, managed in the interest of the professors, who, with scarcely an exception, have direct pecuniary interests in the size of the classes. The greater the number of students and graduates, the larger the fees, and the higher the income of the teachers. The running expenses and the interest on the moneys expended for the teaching-plan are the first call, after which the balance is divided. These chartered corporations, are wholly irresponsible, without supervision by the State, the profession or the public. It would not be difficult, without fear of just rebuke, to bring a railing accusation against them for persistently acting in their own, and not in the interests of the public. But the time has passed for this. Yet, it is surpising to think that so many men, distinguished in every way in their profession, cultured and liberal, still cling to and even advocate, the advantages of an irresponsibility, which has made the American *system* of medical education a by-word among the nations.

Let me not be misunderstood. These very men are, in many instances, those whom we delight to honor, with names which will last as long as American medicine. Yet, to an unbiased mind, there can be no hesitation in affirming that the system which has been permitted to develop in our midst has done,

nay, is doing, irreparable wrong. But, it may be urged, on the part of the schools, that they are what the profession wishes. The stream does not rise higher than its source. I do not think that this holds good at present. It does not require a very wide professional acquaintance to gather, that there is now developing, throughout the length and breadth of the land, an earnest desire to support a higher medical education, and this is borne out by the success which has attended the tentative efforts in this direction of the larger schools, which have made a three years' college course compulsory.

Here, let me remind those doctors who talk loudly of medical reform, of the selfishness of schoolmen, of the difficulty in getting colleges to advance, that very much rests with the degree of support given by them to those schools which really make sacrifices for the elevation of the standard. If, for instance, the University of Pennsylvania or Harvard, or the College of Physicians and Surgeons in New York, or the University of Maryland, were to extend to four full years the course of study, there would be at each of these schools, without the slightest doubt, a falling off in income from the reduction in the number of students; so much so, that it would be impossible to run the larger establishments at their present full equipment. Manifestly, it would be suicidal, without the guarantee of outside aid, to imperil corporate interests of such magnitude. But, if on the other hand, those physicians throughout the country, who strongly favor a four years' course as the minimum in which a man can obtain a reasonable knowledge of the science and art of medicine, if these men were to direct their students to such institutions, (and in this matter we all know how much influence the physician has), the problem would be at once solved.

Too often college faculties seem stricken with timidity in the presence of suggestions to lengthen the curriculum and to raise the standard. Yet, a superficial study of the history of the movement since 1871 and 1872, when Harvard so nobly took the lead, should be convincing to all that even from the lowest considerations the advance should be successful. You have but to look to the condition of the schools which have been in the van, to see that the bread cast upon the waters has already been found. I do not say that these schools are in all instances the most prosperous numerically. Heaven forbid; that is not a standard of merit. But, take the laboratory equipment, the measure in which they fulfil medical requirements, the practical teaching and the development of clinical instruction, and I say without fear of contradiction, that these schools have met with an ample and a just reward. And yet, these are the very schools which clamor loudest for further advance, showing how dangerous it is to arouse the slumbering conscience and to abandon the conviction that a two session course is sufficient for the average American student. But in spite of all that has been done, in spite of the agitation which has been so active during the past ten years, the sad truth must be told that a large percentage of doctors are graduated annually after only two sessions of study.

On paper, the two session schools almost universally demand three years; one of which, it is stated, may be with a physician. Now, it is notorious in these schools that a large majority of the men receive the degree at the end of the second college year, and it is just as notorious that not 5 per cent. of the cases in which a preliminary year of study has been passed with a physician is a *bona-fide* period of medical instruction. It practically amounts to this, that a man enters without any fair preliminary test as to elementary education, say on the first of October of the present year, and eighteen months from date, or rather seventeen months, sometime in March, 1891, he will be let loose upon the common-wealth. Eighteen months in which to master one of the highest, as it certainly is one of the most difficult of the professions which man is called upon to practise! That, gentlemen, these are facts, sad facts, each one of you knows. Yet so blind do men seem in this matter,

so wedded to this pernicious system, that I have known physicians in large practice, able, cultivated men, contributors to medical literature, standing high in the esteem of their brethren, permit their sons to follow out the curriculum. Picture if you can the mental condition of such a graduate; an incoherent jumble of theories, a chaotic assortment of what he would call practical tips. But this question has its tragic side, which completely overshadows everything else. It makes one's blood boil to think that there are sent out year by year scores of men called doctors, who have never attended a case of labor, and who are utterly ignorant of the ordinary every day diseases which they may be called upon to treat, men who may never have seen the inside of a hospital ward, and who would not know Scarpa's space from the sole of the foot. Yet, gentlemen, this is the disgraceful condition which some school men have the audacity to ask you to perpetuate; to continue to intrust interests so sacred to hands so unworthy. Is it to be wondered, considering this shocking laxity, that there is a widespread distrust in the public of professional education, and that quacks, charlatans and imposters possess the land?

But the handwriting is on the wall, the interpretation has been read, and the prophecy indeed is in course of fulfillment. It needs not the vision of a Beor to advertise that within ten years in scarcely a State of the Union will the degree carry with it the privilege of registration; and with this removal of the kingdom from the schools will dawn a new era for the profession in this country. This will happen when unrestricted competition between the colleges and the total absence of professional and State restraint are things of the past.

Under the second plan the entire question of registration is placed in the hands of examiners, appointed by the Governor or by the State societies. Such a board to be effective must constitute the only portal to practice. The practical working, as shown in North Carolina, Virginia and Minnesota, presents no difficulty, and it constitutes an effective barrier against the inroads of poorly qualified graduates. Within a few years this measure will be widely adopted. It has certain advantages in a simple mechanism, and in clearly defined duties. But the powers are too limited, and there is no control of education, preliminary and special, such as comes strictly within the power of the profession in each State.

The record of the Virginia Examining Board for the four years ending October, 1888, is an excellent illustration of the good which may be done. Of 240 candidates examined 54, or 22 per cent., were rejected, a percentage which might be increased considerably if practical examinations were instituted in the practical branches.

Ultimately I believe a more elaborate plan will prevail more difficult to organize, but practical and possessing the great advantage of giving the control of the profession into the hands of the practitioners, and of doing away forever with the minority rule of the college. Theoretically, there can be no question (particularly in democratic communities) that a State board should be elective, not appointed by the Governor or the societies. An elective board is in reality a medical parliament, which should take cognizance of all matters relating to medical education, and, perhaps, though of this I am not so sure, of questions of public health within the State. The assembly districts or other territorial divisions which might be made, would send one, or perhaps two, representatives to the board (depending upon the professional population in each district). The electors would be constituted by all practitioners irrespective of schools, which had registered at a certain date. A man who had practised, even without a diploma, for a certain time would, under these circumstances, have to be recognized and permitted to register.

The Governor of the State would issue the first warrant for the election, which would subsequently be the prerogative of the executive of the board. It might be necessary, at first, to have, from each district, members returned from at least three of the divisions which at present constitute practitioners. The

representation should be per capita, the number of constituents in each electorate to be previously arranged. The term of the board should be, at least, four or five years, and members should be eligible for reëlection. Conducted by ballot there should not be the slighest difficulty in carrying out such an election. There would be, of course, active canvassing, and perhaps, many nominated from one district. Though there would be opportunities for political trickery and gerrymandering, I think, on the whole, it would be found, that an election could be conducted with tolerable purity. The universities and schools would have full representation on the board. To such an organization, I believe, might be intrusted the control of all matters relating to medical education in the State. It would correspond to the law societies, and to the synods and conferences of the various religious denominations. The powers of such a board would be accurately defined by legislation, and should, relate first to preliminary education; secondly, to the examination and registration of candidates for the license to practise; and thirdly, the control of all matters relating to discipline with the profession. The necessary expense would be met—first, by the fees paid by the candidates for examination; secondly, by a small annual tax levied upon all registered practitioners. Such a body could look forward hopefully to a permanent establishment in each State, with buildings suitably equipped for examination, and with every possible provision for conducting, in an orderly and systematic manner, the business of the profession.

The first important function of the board would be the regulation of the minimum standard of education required on entering the profession. It is perfectly legitimate that the profession should say, through its representatives, what should be the qualifications of a candidate who desires to enter upon the study of medicine. In law this holds good; why should it not be so with us. A guarantee of uniformity would thus be given which cannot be expected in the schools.

The examiners at the preliminary test should be independent teachers, not professional men, and the examinations could be arranged in different parts of the State. The period of study would date from the passing of this preliminary examination. Such a measure would effectually prevent the entrance of men whose education was such that they could not subsequently grapple with the subjects of professional study.

The examination and registration of candidates would constitute the most important function of the board.

Upon no question will there be a greater diversity of opinion than upon the selection of examiners. The opposition to State Boards on the part of school men is very largely based on the doubt which they have as to the selection of thoroughly equipped men for this work. On the part of the profession such a feeling exists that would prevent the appointment by the board as examiner on his own subject a teacher in any school. The difficulties, however, are not insuperable. With a proper system of numbers for written examinations, and with two examiners at every oral, there could not be the slightest objection, so far as I can see, to the selection of school men as examiners in certain of the branches. In anatomy, chemistry, physiolgy and pathology, that is to say in all the scientific branches, it would be almost impossible to secure from the general profession examiners with the necessary training. It certainly would be most unjust to well-equipped students from the laboratories of our first-class schools to subject them to examinations on these branches by men who had crammed on purpose from two or three of the most recent text books. On the other hand, in the more practical subjects, there are certainly in each State to be found men fully capable of conducting the necessary test work. I have the honor to know personally, in many States of the Union, men to whom I would intrust with the utmost confidence the examination of my students in the theory and practice of medicine, and I doubt not that in surgery, midwifery, gynecology, and in the polyglot subject of therapeutics,men equally able in these

departments would be forthcoming.

There need not be any difficulty in the existing differences between the various schools of practice. All students would be examined in the great primary divisions, anatomy, physiology, and chemistry, and so also in pathology and morbid anatomy, in obstetrics and in operative gynecology and in medical jurisprudence.

The examinations in these branches would be uniform. In therapeutics only would there be separate tests for regulars, homœopathists and eclectics. On application, the student would have to indicate for which of the three he wished to apply, and, if successful, would be placed in one of the three divisions of the State Register. I am free to confess that this scheme may, to some, seem Utopian, but I am firmly convinced that the majority of those who hear me to-day will live to see State Boards organized on this, or upon a modified plan.

With the third function of the Board, viz., that relating to discipline, I need not detain you further than to say that in any effective act there should be penal clauses giving authority to prosecute irregular and unlicensed practitioners; to remove for cause a name from the register; and to exercise such additional powers as might, in the opin- of the framers of the bill, be thought justifiable.

Now the entire feasibility of such a scheme is illustrated by the professional history of the Province of Ontario. Up to 1863–6 a Licensing Board appointed by the State which dealt, however, in examinations only in the case of candidates without diplomas, but to all intents and purposes it was simply a Board of Registration to which holders of degrees presented themselves, paid a small fee and obtained the license. The schools practically controlled it.

In the session of 1865–6 the profession of the Province sought incorporation, and the Act was framed which, with certain important modifications, at present remains in force. It practically hands over to the profession, through the elected representatives, the management of their own affairs so far as they relate to preliminary and professional examinations and certain diciplinary enactments. In spite of the strenuous opposition on the part of many who felt that it was a most degrading thing thus to lop the important privilege hitherto held by the Universities which enabled graduates to obtain the license without further examination. In spite of dissensions and dissatisfaction, such as are almost inevitable in connection with a new organization, the Board has persisted in its good work and to day, after 23 years of existance, it has record of which the entire profession of the Province is most justly proud. On no point was opposition more bitter or more prolonged than on the admission to representation of members of the homœopathic and eclectic bodies. My very first introduction to the profession was a visit with my preceptor to the committee room of the House, in which certain amendments to the Act were being pushed by the colleges. I can recall with vividness the heated dispute with reference to this very question of admission of the homœopathists and eclectics to proportionate representation. It was thought to be a defilement even to come near unto the unclean thing. But wise counsels prevailed, and representation remained general, as it was, though it is true, I believe, that the eclectic body no longer has practitioners enough in the Provinces to send a representative.

The influence which this organization has exerted has been in the highest degree beneficial, and the schools now accept the inevitable with a perfectly good grace. The Board possesses a magnificent central building in which to conduct the examinations, with offices for registration and rooms for a Provincial Library. The fees from the examinations and a small annual tax levied on each registered practitioner has proved a source of ample income. The same condition, with modifications, exists in the other British Provinces.

To those who look upon such a scheme as I speak of as Utopian, and urge difficulties on account of the deeply-seated prejudices and wide dissensions existing between the schools, I might say that

the condition here is practically the same in kind, though perhaps greater in degree, to that which existed in the British Provinces prior to 1866. What has been done there so successfully can be equally well accomplished in every State of the Union.

The great gain is, the public guarantee that when a man has received the license to practise, he has, at any rate, the elements of a solid education; that he knows the structure and functions of the human body; and that he is capable of meeting the ordinary emergencies of professional life. Such a plan removes the irresponsibility of the schools, establishes a uniform curriculum of studies in each, and exacts a minimum time for theoretical and practical work.

The difference is simply this, that under our present system independent and irresponsible schools have the upper hand and dictate terms to the profession and to the public, and do whatever they please. With an organized profession, through is representatives in session, the schools take the second place—they exist for the profession and the public. There can be no question as to the great superiority of this method. It is essentially democratic, and should commend itself in every particular to the profession of this country. It is infinitely superior to the second method carried on on at present in many of the States, although the Examining Board nominated by the Governor or the societies is better than unrestricted registration. While the interests of corporations are fully represented in this system, they have not the overshadowing power such as was granted in Great Britain by the recent Act in which it seems almost ridiculous to think that only six representatives from the profession at large found a place in a Board, and this number grudgingly granted as a privilege not as a right.

It does not do, however, to underestimate the difficulties which have to be encountered in any attempt to organize these Boards. It may be premature in many States. The profession, I have frequently heard it stated, are not ready for this. This, from my own observation, I should doubt. I believe the general body of the profession when it fully understands the question cannot but agree that the method is in reality a safe one. I am sure that the public, through the press, will heartily concur in any plan which will guarantee that the practitioners to whom they entrust life and limb shall be educated men.

Opposition will be the strongest on the one hand from the schools, which look askance at any measure likely to interfere with their prerogatives, and on the other hand the members of the homœopathic and eclectic fraternity, not unnaturally, dread lest in any such arrangement a full measure of justice should not be meted them.

The antagonism of the schools is not, I believe, serious. To be effectual they would have to be united. It is notorious that many of the Faculties, or perhaps, more truly, many of the prominent members in each Faculty, urgently support State Boards, and a return to the old and normal condition in which a university degree partook somewhat of the nature of an honor, and had no relation to the license to practise. The opposition from the homeopathists and eclectics need not be serious. They profess to seek for better things and to look for a higher standard of examinations. If we are truly anxious to deal fairly with them in a matter, not relating so much to our own as to the interests of the public, I am quite sure that we shall find them ready and willing to join hands in such a laudable work. Nor must we talk to them of concessions, but acknowledge plainly their rights, which before the law are the same as our own.

To move surely we must move slowly, but firmly and fearlessly, confident in the justness of our claims on behalf of the profession and of the public, and animated solely with a desire to secure to the humblest citizen of this great country in the day of his tribulation, in the hour of his need, a skill worthy of the enlightened humanity which we profess, and of the noble calling in which we have the honor to serve.

CURABILITY OF LARYNGEAL PHTHISIS.*

By H. Clinton McSherry, M.D.,

of Baltimore, M.D.,

[Chairman's report of the Section of Ophthalmology, Otology and Laryngology.]

No one who has watched the literature of the subject for the last few years, can doubt that laryngeal phthisis, in all its forms, is much more manageable than was formerly supposed. Indeed, within the last decade the dictum of authority was that under no local treatment could healing of tubercular ulcerations in the larynx ever be expected. Great support had been given to this therapeutical skepticism by the statements of Eppinger and Heinze based on their microscopical examinations, that healing of the tubercular ulcerative process in the larynx was impossible.†

As, however, cases of spontaneous cicatrization have been reported, and new remedies and methods of treatment have been employed for which good results are claimed, a brief review of some of the later writings on the treatment of laryngeal phthisis will be given, from which it may be seen that there is as Krause says, no longer any disposition to look on this affection as a "*noli me tangere*", for by judicious local interference we can expect not only an amelioration of the symptoms but in some cases cure of the laryngeal lesions.

Krause, Heryng, Rosenberg, Jellinek and others of whom I will speak further on, have done the most important work in making known the remarkable results of their local treatment, but as their attention has been mainly directed to the management of the latter stages of the disease—infiltration and ulceration—where the prognosis is most unfavorable, before presenting the methods adopted by them a few minutes will be devoted to an outline of what is considered the best treatment in the earlier stages when the progress of the disease can be better controlled.

That laryngeal phthisis is usually secondary to pulmonary phthisis is conceded, whether it is ever primary is still unsettled, but often after a deposit in the lungs has been discovered, sometimes before any evidence of disease there can be detected, the larynx presents a very marked anæmic pallor which is a premonition of the local tubercular changes which follow. There is frequently associated with this condition a dry irritative spasmodic cough or clearing of the throat with occasional loss of voice. These symptoms may be due to pressure on the recurrent nerve, by consolidated lung tissue, or as pointed out by Gougenheim and Leval-Picquechef,* to which I called attention in the *American Journal of Medical Sciences*, in October, 1885, to disease of a little chain of lymphatic ganglia situated along the trachea from the bifurcation to the larynx. This is of some value as indicating the beginning of tubercular deposits and the necessity for instituting measures to arrest the further development of the disease, so some short extracts from their description of the peritracheo-laryngeal ganglia should be interesting. They say "The description of these ganglia was based on twenty dissections in normal and pathological conditions. These ganglia form a chain composed nearly always of three groups. The *inferior*, the most constant and voluminous, is almost continuous with the mediastinal ganglia; the *middle* is less constant than the inferior, and is composed of extremely small ganglia which are often lost to view; the *superior* is situated at the posterior and inferior portion of the larynx. It is perhaps less constant than the middle and is also composed of extremely small ganglia. The ganglia are susceptible of becoming hypertrophied and of attaining a considerable size in tuberculosis, cancer, and perhaps also in syphilis.

The autopsies made were principally in tuberculosis, rarely in cancer, and in

*Read before the Medical and Chirurgical Faculty, at its 91st Annual Meeting, April 26th, 1889.

†Theodor Hering, Deut. Med. Woch., Dec. 2nd, 1886.

*Annales des maladies de l'oreille, du larynx et des organes connexes, Mars, 1884.

syphilis never." * * These ganglia may play a grand role in the functional troubles of the larynx, vocal or respiratory. They become hypertrophied in a number of cases, and, however little excessive the development may be, the recurrent nerves, to which they are very proximate, are compressed by them, and this compression gives the key to frequent functional troubles which are far from being proportionate to the laryngeal lesions."

Where there is in beginning phthisis the characteristic anæmic appearance of the larynx with dry cough, clearing of the throat and loss of voice, much can be done to prevent the development of tubercular laryngitis by climatic, hygienic and general tonic treatment. That in those who have the inherited or acquired predisposition to phthisis or even where it has developed, it may be arrested either spontaneously or by proper agencies is strikingly presented by Vibert,* who states that the register of autopsies at the Paris morgue showed in 131 persons who had died sudden deaths, evidence of phthisis in twenty-five and of these twenty-five in seventeen the disease had become fibrous or cretaceous, that is cured.

If the progress of the disease should not be stopped, after a time localized congestions appear on the laryngeal mucous membrane. This congestion is at first usually on the posterior portion of the vocal cord or on the arytenoids which then contrast markedly with the anæmic appearance of the rest of the larynx, but after a time the congestion becomes general. It is in this stage of beginning laryngitis that the treatment by topical applications should be instituted. Mild astringent solutions are considered most beneficial for this condition. Among those most frequently employed are Dobell's solution, boracic acid, chloro-carbolate of potash, sulpho-carbolate of zinc, chloro-carbolate of zinc, ammonio-ferric alum and indeed any of the astringents will be suitable, provided mild solutions are used. These remedies should be applied with the atomizer, inhaler or laryngeal syringe several times a day. By these means congestion may be relieved and irritating collections of mucus prevented. Applications by the brush, sponge or cotton holder should be very carefully employed in this condition on account of the liability of producing abrasions of the mucous membrane and thus favoring ulceration. Should small shallow ulcerations occur, they may be the so-called catarrhal, or erosive ulcerations of Virchow, and not properly speaking tubercular ulcerations, for as Louis has stated "there are (in phthisis) lesions of inflammatory origin. It is necessary to distinguish between laryngitis of the tuberculous and tubercular laryngitis," and Gougenheim and Tissier say "while the relation of cause and effect between tuberculosis of the lungs and lesions of the larynx, reputed non-tubercular may be admitted, sometimes a simple irritation is seen there which is produced by the cough and the contact of the expectorated materials. It is the same here as in the case of an acute coryza where an inflammation of the edge of the lips is produced by the secretion of the nasal mucous membrane running over it."* The importance of avoiding the production of abrasions or ulcerations in the laryngitis of phthisis is indicated by the investigations of Prof. Loesch, of St. Petersburg, who concludes from the examination of fourteen fatal cases of laryngeal phthisis that "1st The primary lesions in the larynx are not due to any action of the tubercle bacilli, but to other causes. 2. That the microbes are unable to penetrate into the tissue of the mucous membrane as long as the epithelial covering is intact. 3. That the appearance of the microbes in the tissue is preceded by a chronic inflammatory process caused mainly by malnutrition of the laryngeal mucous membrane."† Koch's microbes have no power of locomotion but by contact will attack the locus minoris resistentiæ, therefore by relieving the beginning laryngitis and healing small erosions

*Lancet, September 22d, 1888.

*"Phthisie Laryngée." Paris, 1888.

†British Medical Journal, November 5th, 1887.

the local disease may be controlled and tubercular ulcerations prevented.

When infiltration and ulceration have occurred, astringent applications may still be of some service, but usually but little good result is expected from this treatment. Although an isolated case of cure by these measures may have been reported, or by iodoform and tannic acid as recommended by Schnitzler, by iodol as used by Lublinski, by chromic acid as formerly used by Heryng or by galvano-cautery as recommended by Gougenheim and Schmiegelow, yet there has nearly always been an element of doubt either in regard to the diagnosis or the relation of cause and effect between the remedy used and the result obtained. It was not until after H. Krause, of Berlin, in 1885, had presented the claims of lactic acid as a curative agent, that any encouraging number of cases was observed of tubercular ulcerations yielding to local treatment. In 1880 Eppinger said in his pathological anatomy of the larynx and trachea, "there is no reliable case (reported) where a tubercular ulceration in the larynx was healed in a proper sense, that is with clean cicatricial tissue." "Hardly seven years later Brehmer wrote enthusiastically. Since the introduction of lactic acid in the method of healing laryngeal ulcerations, the healing is usual and only an isolated case remains unhealed"* and Krause two years after his first publication, and after the observation of 173 cases treated by this remedy, stated that only under very exceptional circumstances could a tubercular ulceration of the larynx resist the action of the acid if properly employed,† While the number of cases reported does not seem to justify the apparently extravagant claims of these observers, it is sufficient to prove that the position of the incurability of tubercular ulcerations is no longer tenable, and the good results obtained from the laryngeal lesion serves to strengthen the hope that progress is being made towards the cure of phthisis pulmonalis.

*Keimer, Deut, Med. Woch., November 15th 1888.
†Deut. Med. Woch., December 16th, 1886.

It was the success which Mosetig-Moorhof obtained in the treatment of lupus with lactic acid and his observation that while it destroyed morbid tissue it left the healthy structures intact, that led Krause to adopt its use in tubercular infiltrations and ulcerations in the larynx. In 1886 he reported sixteen cures of ulcerations treated by this remedy and has since had a very large number. In 1885 he showed in Berlin the larynx of a patient who died of phthisis, in which there was a cicatrix of a tubercular ulceration which had been treated by him with lactic acid. At first he uses a solution of the strength of twenty per cent. which he increases as the tolerance of the patient becomes better to eighty per cent. Under this the redness and swelling disappear, and if the applications are made daily and vigorously to the ulcerated surfaces healing take place. After the regular application of the concentrated solution, the ulceration to which it is applied is covered with a scab, which like a croupous exudation is glistening with moisture. It is raised only slightly above the surface, whilst it covers closely the subjacent ulceration. After this scab comes away healthy granulations appear, followed by diminution and cicatrization of the sore. "The acid works, Krause says according to an apt comparison of Mosetig-Moorhof, and Jellinek, as a sharp spoon. It removes as it makes an impression the morbid parts out of their surroundings and leaves in place of the destroyed tissue, namely in the healed mucous membrane, a deep pit."* After Krause's reported success Heryng of Warsaw, who had been using chromic acid, adopted the use of lactic acid and he soon found that surgical measures in connection with it gave better results. He advocates curetting the ulcerated surface and the removal, as far as possible, of all tubercular new formation before applying the acid. He also advises as Marcet and Moritz Schmidt had done, deep incisions into the œdematous structures, but this latter treatment does not meet with much favor for the reason

*Deut. Med. Woch., December 16th, 1886.

that as long as the epithelium is unbroken there is no ulceration and although there should be tubercular infiltration in the mucosa and submucosa, the patient might be in a comparatively comfortable condition. In thirty-five cases treated by Heryng there was healing in twenty-seven, and in two an improvement of the condition was obtained. In fifteen* cases treated by lactic acid without curetting in eleven there was perfect healing (cicatrization) and once there was recurrence. In the twenty cases treated with the curette and lactic acid, healing was observed in fifteen. Dr. Oltuszewski, of Warsaw, reports† nine cases treated with lactic acid in which there was healing in six, great improvement in one, some improvement in another and one negative result.

Seifert and Brun used a mixture of lactic acid and iodoform locally and healing of the ulcerations resulted which had lasted from 3 months to over a year, and Keimer of Düsseldorf records 11 cases cured by the use of the curette and lactic acid, in a few instances combined with menthol inhalations.‡ In some cases where there is considerable infiltration Heryng uses submucous injections, by means of a laryngeal syringe, of lactic acid and other remedies to arrest the tubercular deposit. The following are his directions for making the injections. The operator should try to avoid the very vascular, nervous or glandular regions. In the epiglottis the injection ought to be made on the external face on account of the two great thickness of the internal face and the excessive glandular richness in that region. At the aryteno-epiglottic folds the injection should be made at the external border near the cartilages of Santorini this part containing fewer glands than in the region of the cartilages of Wrisberg. From 5 to 15 drops of a ten per cent. solution is used at first and afterwards the strength should be increased.

Dr. Major, of Montreal, has also used with good effect the submucous injections of lactic acid. He says that no inflammatory action followed the punctures. "The ulcerations healed most kindly and the tubercular deposits underwent absorption more readily than by any other means."*

In my own hands I have found the submucous injection of lactic acid has sometimes produced much irritation and laryngeal spasms, and the application of solutions of over the strength of fifty per cent. were distressing to the patient. But Krause, Heryng and Gougenheim say they have had but little difficulty in this way, patients having come back frequently for weeks or months to have applications made. It is advisable to anæsthetize the laryngeal mucous membrane with cocaine or menthol before applying the acid, and where the distress caused by injections of the acid is very great Heryng has recommended as less irritating a mixture of iodoform and carbolic acid in glycerine.

As an evidence of the effect of lactic acid on infiltrated tissue Jellinek reports a case in which tracheotomy had been done for tubercular stenosis and in twenty days under the use of the acid the swelling in the larynx was so reduced that the canula was dispensed with. Hunter MacKenzie who relates the above in the says in a similar case he did not have the same result but under the acid there was no further progress of disease.†

Next to lactic acid the remedy for which the best results are claimed is menthol. At first this was used as a substitute for cocaine on account of the great price of the latter at that time, and at the Association of German Physicians in 1886, Albert Rosenberg, of Berlin, recommended its use as an injection with the laryngeal syringe for the relief of pain. Cocaine had been a most important addition to the therapeutical agents in the treatment of laryngeal phthisis, but it acted only as an analgesic, no one claimed that it was curative, Rosenberg soon discovered, however, that menthol

*Keimer, Deut. Med. Woch., November 15th, 1888.
†Deut Med. Woch., February 23rd, 1888.
‡Deutsch. Med. Woch. Nov. 15th, 1888.

*Med. News. Nov. 15th, 1886.
†Brit. Med. Journal, August 27th, 1887.

not only relieved pain but also had the power of healing tubercular ulcerations in the larynx.

He recommends the injection of one to two grams of at first a five and increasing afterwards to a twenty per cent. solution in oil.* This should be used once or twice a day, every day for a while and later less frequently. He prefers the oil to the ethereal or alcoholic solutions as he found the latter too stimulating. He claims for menthol, antiseptic as well as anæsthetic qualities for he says that investigations made by him in Koch's laboratory showed that in a gaseous form it destroyed a pure culture of tubercle bacilli.*

In 80 cases, including lung phthisis, treated by menthol he found that in a short time the subjective symptoms improved, at the same time the ulcerations which had a dirty gray covering, became clean after a few days; fresh healthy granulations springing up and in from 14 days to 8 or 10 weeks cicatrization occurred. He reports† a number of cases in which there had been no reappearance of the ulceration, although the healing had lasted two years. Rosenberg does not claim that menthol has as good an influence on infiltrated tissue as lactic acid, but Beehag, of Edinburgh, who says he had a large experience in Krause's clinic and treated many of Rosenberg's cases and watched his results for months, thinks that menthol has a more general influence than lactic acid which he says is confined to the spot where it is applied. To illustrate the latter fact he relates the following. "At the Congress of Naturalists and Physicians, held in Berlin in 1886, Heryng of Warsaw, produced a larynx to show that he had cured a laryngeal ulceration by the use of lactic acid. In other parts of the same larynx suspicious points were observed and pointed out by Prof. Chiari of Prague as being probably tubercular, and such indeed they were proved to be on subsequent microscopical examination by Virchow. Certainly the tubercular ulcer had been healed in this case, but the tubercular disease had not been wholly exterminated from the larynx,"*

Under the use of menthol Rosenberg says the pain in the throat and dysphagia are relieved, the patients spirits improve, the voice becoming cheerful and as swallowing does not produce pain, the appetite returns. In reference to its analgesic effect he states that it has a cumulative action. "After the first injection the freedom from pain lasts one, two or three hours, after the second or third a longer time and so on, so that after eight days the effect lasts the whole day."

Used as an inhalation, fifteen drops of a thirty per cent. solution, it also has a most beneficial effect, both on the laryngeal and pulmonary disease. The cough decreases, the amount of sputum is diminished and the character of it improved and, as he observed, where the bacilli had been abundant they disappeared.

My own experience with menthol has been a large one and I can endorse Rosenberg's claims, particularly in regard to the improvement of the subjective symptoms, produced by this agent. I have seen some cases where the odynphagia was so great, that eating was impossible, and after cocaine had failed to relieve the pain, menthol rapidly gave relief and the patients were able to swallow with comfort, in consequence of which the general condition became much improved.

Yet another method of treatment which must be mentioned is tracheotomy. It has been strongly advocated particularly by Beverly Robinson and Moritz Schmidt. They both advise early operation before any very distressing symptoms have appeared.

Beverly Robinson says to obtain good results it seems advisable not to delay the operation, but rather to perform it as soon as the nature of the disease is obvious and other measures appear of no avail. Moritz Schmidt gives the following indications for tracheotomy. 1st. In stenosis, but not to wait until it be-

*Berliner Klinische Wochenschrift, June 27th, 1887.
†Therapeutische Monatshefte, August 1888.

†Edinburgh Med. Journal, January 1888.

comes extreme. 2nd. When the disease in the larynx is advanced but the lung trouble slight, even without stenosis. 3rd. Where the laryngeal disease is becoming rapidly worse with comparatively good lungs, even before the appearance of stenosis. 4th. At the time of the appearance of the difficulty in swallowing or even sooner.*

Hunter MacKenzie says by opening the windpipe two advantages are gained, rest and freedom from irritation, and scraping, excising, or removal of tubercular tissue facilitated. The doctrine is one of the two R's; Rest and Radication.†

Both Robinson and Schimdt report cures by this method and in some of the cases reported cured by Schmidt tubercle bacilli had been found in the sputum.

Although it is true that after the operation the larynx would be free from the irritation produced by the expectorations passing over it, yet so far it has been but seldom adopted as a means of treatment, except when it was necessary to relieve dyspnœa due to tumefaction or new formations in the larynx. Morell Mackenzie's statement that "far from giving rest to the larynx, the wearing of the canula tends to irritate the windpipe" accords apparently with the general feeling in regard to this method.

The consideration of the various means of general management of phthisis which have been employed in connection with the local treatment does not come within the scope of this paper, the object of which has been to present a short résumé of the more important publications bearing on the curability of laryngeal phthisis and the best local measures, for obtaining that result.

From the statements of the competent observers who have been mentioned, it seems that the following conclusions may be safely deduced.

1st. That in tubercular subjects, non-tubercular as well as tubercular laryngitis and ulcerations may occur.

2nd. Tubercular ulcerations in the larynx are not incurable.

The number of cases where healing has been seen during life and those in which the cicatrizations have been observed on the post-mortem table and verified by microscopical examinations are now too many for any further skepticism on this point

3rd. The agent from which the best results have been obtained is lactic acid.

4th. That operative measures for the removal of the diseased tissues before the use of the acid, greatly increase its efficiency.

5th. That while menthol does not seem to reduce swelling of infiltrated tissue, as does lactic acid, it is hardly inferior in its good effects on ulcerated surfaces, and its analgesic influence gives it a great advantage over the acid, the application of which is usually painful.

6th. The action of menthol and lactic acid may be advantageously combined by first injecting the former before applying the latter.

In closing it must be stated that in a few cases after the tubercular ulcerations had been healed there has been a reappearance, though Krause states that this never occurs at the cicatrized point, nor does this recurrence lessen the importance of the fact that the primary ulceration had been healed.

*Deut. Med. Woch., December 9th, 1886.
†British Medical Journal, August 28th, 1887.

Sale of Morphine in Berlin.—There have been so many cases of slow self-poisoning by morphine lately in Berlin that the evil of indiscriminate poison selling has had to be peremptorily checked. Stringent police orders have been in consequence issued to all chemists with specific directions and precautions as to the sale of morphine by them, and wholesale druggists must not sell morphine to anybody excepting to doctors and chemists. These precautions will, no doubt, embarrass persons who have carried a prescription from one chemist to another, as they craved for morphine; and forged prescriptions may also be partly checked.—*Lancet.*

Correspondence.

VARICELLA IN ADULTS.

BALTIMORE, MD., May 20, 1889.

Editor Maryland Medical Journal:

DEAR SIR:—In reply to the question of Dr. Clements, of Dover, Del., as to whether or not varicella or chicken-pox was confined to children, I would say that it does sometimes, though rarely, affect adults. Comparatively recently I have seen a case of well marked chicken-pox in a nurse about thirty years old, contracted in a family where several children had the disease, and where there could be no question as to diagnosis. This case does not stand alone by any means, for I have found varicella among adults as common as scarlet fever or whooping cough among the same class.

Flint in his practice of medicine says of varicella, "It is an eruptive disease "affecting, for the most part, children, "but occasionally adults. Within the "past year I have met with three cases "in adults, and in one of these cases the "patient was nearly forty years of age."

Respectfully yours,
JOHN T. KING, M.D.

VARICELLA IN ADULTS.

CENTREVILLE, MD., May 21, 1889.

Editor Maryland Medical Journal:

DEAR SIR:—In reply to Thomas O. Clements, M.D., inquiring as to the possibility of chicken-pox in the adult, it will only be necessary to refer him to the work of Dr. Austin Flint, Flint's Practice of Medicine, to relieve him of any doubt upon the question; as he there states upon his own authority, which is quite reliable, that it is "a disease affecting for the most part children, but occasionally adults. Within the past year I have met with three cases in adults, and in one of these cases the patient was nearly forty years of age."

Further testimony to same effect could be adduced if necessary.

Respectfully yours,
JAMES BORDLEY.

Society Reports.

MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

Ninety-first Annual Session held at the Hall of the Faculty, Baltimore, April, 23, 24, 25, 26 and 27, 1889,

(*continued from page* 55.)

DR. JOHN MORRIS, PRESIDENT, IN THE CHAIR. DRS. G. L. TANEYHILL, ROBERT T. WILSON AND WILLIAM B. CANFIELD, SECRETARIES.

(Specially reported for the MARYLAND MEDICAL JOURNAL.)

Dr. F. T. Miles read a paper entitled:

A CASE OF DILATATION OF THE STOMACH DEPENDENT UPON CONTRACTION OF THE PYLORUS

in which tetany of a typical character occurred, speedily ending in death. He could find nothing in the vomited matter to account for it.

Dr. J. W. Chambers submitted a paper on

CYSTIC TUMOR OF THE LOWER JAW.

Dr. Geo. J. Preston reported a case of

TUMOR OF THE CEREBELLUM

pressing on the middle lobe.

Dr. J. D. Blake in referring to Dr. Welch's paper, asked how the poison could be transmitted by the nerves alone? If injection into the blood does not kill, but makes the animal proof against future attacks, why not inject the substance directly into the blood of man to prevent hydrophobia?

Dr. W. C. Van Bibber said if the temperature stated would kill the organism of rabies, this should give a valuable idea as to the treatment.

Dr. Wm. H. Welch remarked in conclusion that many facts about rabies were known which could not be explained. It was not understood how the virus was transmitted along the nerves,

but the fact remains; and still further, this did not seem to disturb the function of the nerve. It might extend along the lymph vessels of the nerves; we know little of the composition of the lymph. He did not mean to be understood as saying that the virus did not extend through the blood and lymphatics, but that we have no evidence of this. In reply to Dr. Van Bibber, he said that the method of cauterization is a good one, but it does not prevent rabies. The virus must penetrate into the nerve to be transmitted by it, and the chance of piercing a nerve in the skin by puncture is very small.

SECTION ON PSYCHOLOGY AND MEDICAL JURISPRUDENCE.

DR. RICHARD GUNDRY, CHAIRMAN.

The Chairman read a paper on the

RELATION OF THE PHYSICIAN TO THE INSANE.

SATURDAY, APRIL 27.—FIFTH DAY.

SECTION ON MICROSCOPY, MICRO-CHEMISTRY AND SPECTRAL ANALYSIS.

DR. CHRISTOPHER JOHNSTON, SR., CHAIRMAN.

The chairman read a report on

I. THE APPLICATION OF SPECTROSCOPY TO THE STUDY OF THE BLOOD.

II. THE AMERICAN OBJECTIVE AS COMPARED WITH THE GERMAN.

SECTION ON OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

Dr. H. C. McSherry read a paper on

CURABILITY OF LARYNGEAL PHTHISIS.

(See page 68.)

and

Dr. A. Friedenwald one on

DISTURBED EQUILIBRIUM OF THE MUSCLES OF THE EYE IN THE CAUSATION OF NERVOUS DISEASES.

Volunteer papers were then read by

Dr. S. J. Fort on

APHASIA, DUE TO SHOCK OF SEVERE CONSECUTIVE EPILEPTIC SPASMS.

Dr. John C. Hemmeter on

RECENT INVESTIGATIONS ON THE PHYSIOLOGICAL ACTIVITY OF ALCOHOL,

which was the result of three years' carefully conducted work in the Biological Laboratory of the Johns Hopkins University.

Dr. A. K. Bond on

ANEURISM OF THE ABDOMINAL AORTA BURSTING INTO THE PLEURAL CAVITY.

and one by

Dr. George H. Rohé on

A PAINLESS AND EFFICIENT METHOD OF EXTIRPATING VASCULAR AND PIGMENTED NÆVI,

with exhibition of photographs.

Drs. A. L. Hodgon, George Thomas, Harry J. Berkeley, B. Merrill Hopkinson and Nathan Ryno Smith were then elected members of the Faculty.

The following are the

OFFICERS, COMMITTEES, SECTIONS, AND DELEGATES FOR THE YEARS 1889–90.

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Section on Anatomy, Physiology and Pathology.—Drs. H. Harlan, J. H. Branham, W. T. Councilman, B. W. Goldsborough, J. C. Hemmeter.

Section on Psychology and Medical Jurisprudence.—Drs. J. S. Conrad, C. G. Hill, R. Gundry, Wm. Lee. S. J. Fort.

Section on Microscopy, Micro-Chemistry and Spectral Analysis..—Drs. T. B. Brune, Wm. B. Canfield, John Dickson, Claude Van Bibber, John R. Winslow.

Section on Ophthalmology, Otology and Laryngology.—Drs. A. Friedenwald, H. C. McSherry, J. H. Hartman, J. F. Perkins, Samuel Johnston.

Delegates to American Medical Association.—Drs. T. A. Ashby, H. H. Biedler, W. D. Booker, John Barron, J. W. Chambers, J. J. Chisolm, J. E. M. Chamberlaine, Wm. B. Canfield, T. B. Evans, John G. Jay, C. H. Jones, John Morris, J. E. Michael, Thos. Opie, G. H. Rohé, J. A. Steuart, S. Theobald, W. C. Van Bibber, Claude Van Bibber, Arthur Williams, W. Winsey, Robert T. Wilson, R. Winslow.

Delegate to British Medical Association.—Joseph F. Perkins.

Expert Testimony as to Death by Poison.—The Supreme Court of Wisconsin has recently formulated a rule of testimony according to which, when a trial for murder by poisoning is on, any physician whose only knowledge of poisons is that which has come to him from books and college training is not competent to give an opinion relative to the symptoms of the final illness of the deceased with regard to their probable causation by poisoning. This is probably the first time that any court has prescribed such a regulation. but it has so much in its favor that we count upon its gradual extension from court to court as questions arise in regard to poisoning cases. No person may justly be put in jeopardy of his life on the quasi-expert testimony of a witness who has gleaned all that he knows of the subject from the printed page or half-remembered lecture.—*N. Y. Med Journal.*

Warner's Safe Cure.—Mr. Hans M. Wilder writes us that a formula for Warner's Safe Kidney and Liver Cure was published in a recent number of the *Rundschau Prag* (*Vomacka*), said to have been given by Warner himself to the Austrian Goverment. Same was as follows:

Fl. ext. lycopus virginica	40 parts.
Fl. ext. hepatica .	30 "
Fl. ext. gaultheria	1 part.
Saltpetre . . .	5 parts.
Alcohol . . .	160 "
Glycerine . . .	80 "
Water, q. s. . .	1000 "

—*New Idea.*

MARYLAND MEDICAL JOURNAL

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BALTIMORE, MAY 25, 1889.

Editorial.

BORAX IN EPILEPSY. — Although epilepsy is, properly considered, a symptom which may appear in the course of many diseases of diverse characters, yet in our present state of imperfect knowledge, physicians are compelled in obscure cases to apply remedies empirically to the relief of the symptom itself, waiting for future study to point out truer methods of treating the underlying diseases. Especially in those cases of obstinate, oft-recurring epilepsy, where the bromides fail, or else reduce the patient to a state of constant stupor, are other and new remedies desirable.

In the *Boston Medical and Surgical Journal*, April 1889, Dr. Folsom recommended borax for such cases, and Dr. Hill (*Medical New*, May 11, 1889,) has more recently given the results of its use in two cases, in which he applied it according to Dr. Folsom's suggestion.

The first patient, a girl of sixteen years, of a neurotic, epileptic family, was healthy until her seventh year when attacks of *petit mal* began to occur, at ever shorter intervals.

One year later *grand mal* appeared. Menstruation, established when she was fourteen, was irregular in interval and in quantity and the periods were marked always by increased frequency and severity of the epileptic seizures. Convulsions occurred nearly every day and sometimes four or five major attacks and numerous minor ones would be experienced within twenty-four hours. She was treated by her family physician, and afterward by three specialists who treated her one, with bromides, the second, with nitroglycerine, the third, with hydrobromic acid, each with temporary success. She was now marked with bromide rash, and her mind was feeble and undeveloped. Her attacks were chiefly nocturnal. Dr. Folsom attended to general health and gave arsenic and the bromides for one year. At the end of this time she was having about twelve attacks a month.

He then gave borax grains x with tincture of cardamon ℥i in water one and one-half hours after meals. After four days use, she passed three months without an attack. Now, after three years of the borax treatment she is a robust vigorous woman, the mind is developing steadily, and she seems practically well, she has had no attack for six months, and during the three years she has never had more than four in a month, and these came from errors in diet.

In the second case, Dr. Folsom has observed great improvement, but the patient has been under treatment but a short time.

THE CURABILITY OF LARYNGEAL PHTHISIS.—If there is one disease which it has always seemed almost hopeless to treat, it is phthisis in one of its forms. This hopelessness, however, is giving way to a feeling that, as some cases have been cured and some end spontaneously, every means and the best means should be tried.

In the article in this issue, Dr. H. C. McSherry, gives a very clear unbiased

picture of the beginning of laryngeal phthisis, reviews each authority and gives his own valuable experiencef. Most observers agree that if a laryngeal phthisis be detected, the lungs are already affected, but there is a respectable minority who does not believe this. However if a person with or without a family history of phthisis complains of hoarseness lasting over several weeks or months, a congested condition of the laryngeal mucous membrane and if tubercle bacilli be found, phthisis maywith good reason be suspected and even pronounced out of the hearing of the patient. "It is in this early stage," says Dr. McSherry, "that the treatment by topical applications should be instituted." Astringent applications preferably with the atomizer should be made.

When ulcerations appear, more active treatment is called for. Krause is enthusiastic for lactic acid, and looking at it calmly, it has undoubtedly been of marked benefit in cases, but "while the number of these cases does not seem to justify the apparently extravagant claims of these observers, it is sufficient to prove that the position of the incurability of tubercular ulcerations is no longer tenable, and the good results obtained from the treatment of the laryngeal lesion serves to strengthen the hope that progress is being made towards the cure of phthisis pulmonalis." The lactic acid seems to attack the diseased tissue alone, acting like a sharp spoon. Lactic acid is used in a solution of 20–30–40 per cent. and even stronger, but its application in many cases is attended with great discomfort even when strong solutions of cocaine are first applied.

Albert Rosenberg, of Berlin, claims a great deal for a 5–20 per cent. menthol solution in oil. It is injected under the mucous membrane, and seems to have a general influence, while the action of lactic acid is confined to the spot where it is applied. Trachootomy is also one method of treatment.

The whole paper seems to be the work of not an enthusiast, but of a calm conscientious worker, speaking from actual experience.

The conclusions appended to the paper are very satisfactory to those discouraged at their former success in treating such cases.

Miscellany.

Ammoniacal Fermentation of Urine —The subject ot ammoniacal fermentation of urine has recently been studied by Drs. A. Russo-Giliberti and G. Dotto in the Pathological Institute of Palermo, and they have published a note in the new monthly journal, *La Sicilia Medica*, concerning it. The discovery of Pasteur and Van Tiegheim, that in the alkaline fermentation of urine the transformation of urea into ammonia carbonate is correlative with the development of an organized vegetable ferment—the micrococcus ureæ,—has now lost its original importance owing to the researches of Miquel and others, which have proved that this transformation is also brought about by the action of other micro-organisms. Miquel describes as a factor in ammoniacal fermentation of urine a bacillus ureæ, very slender and mobile, occurring either alone or in groups of from two to four, which can transform urea into carbonate of ammonia almost as efficiently as the micrococcus ureæ; also an aspergillus, the action of which is less prompt. Leube's researches show other bacteria with the same capacity. He describes a sarcina and three species of bacilli, very different to the bacillus ureæ of Miquel, possessing the power of hydrating urea. In Flügge's Institute a micrococcus was obtained from fermented urine which also produces energetic fermentation of urea. It is distinct from Pasteur's, and as it liquefies gelatine it has received the name of micrococcus ureæ liquefaciens. Heraeus obtained four bacilli capable of producing hydration of urea; three liquefied gelatine, and were quite distinct from those described by Leube. It is thus seen that the micrococcus ureæ is not the only micro-organism possessing this property. Warrington also, mak-

ing further researches, found that the bacillus fluorescens had the power of transforming ureæ into ammonia carbonate, and that certain species of bacteria do not possess that property. More recently, Drs. Russo-Giliberti and Dotto have made experiments with the penicillium glaucum, &c. They made a 2 per cent. solution of pure urea and poured 100 cubic centimetres of it into sterilised tubes; they then sterilised the solution according to Tyndall's method, keeping the tubes one hour a day, for seven days, at a temperature of 65° to 70°C.; one of the tubes was tested by the contents being added to water, which was then distilled and sterilised, no ammonia, nitric acid, nitrous acid, or carbonic acid being found. In order to prove the absence of germs, the tubes were kept for ten days in the hot chamber at a temperature varying from 25° to 30°C. In one tube in which penicillium glaucum had been sown there was found an abundance of ammonia carbonate from the transformation of the urea. Consequently, this microbe must be added to the number of those which are capable of causing ammoniacal fermentation of urea.

Medical Criticism of Art.—A writer in the *Union Médicale* of May 31st, criticizes some of the pictures of the present *Salon* He says: "In the consultation," an old doctor seated before a table, auscults the back of an emaciated little girl while two Sisters stand near by with an air of cold indifference. A sad picture and well painted; but why did not the doctor have his house-surgeon with him? That is the rule at the hospital. * * * Mr. Perandeau gives us a clinical study. Seated upon a bench is a row of women dressed in black, and all of them pale, a condition which the painter evidently believes the chief sign of all diseases. One lady, coughing in her handkerchief, personates phthisis in its classic form. But why is the picture so full of sadness. Even charity patients often amuse themselves while waiting; and many patients go to the hospitals who have not the smallest idea of dying there. * * * Mr. Olaria's picture, with an appearance of sadness, is really quite enlivening. A moribund infant is being bled by the family doctor and the blood is flying out in excellent style. But behold the accompanying legand: "The young Olaria restored to life by Dr. M.; A portrait." This is from a grateful Patient! Confrères let us salute. * * * We desire to notify Mlle. Lee-Robbins that her "Young Japanese," who is happy and full of nice color, is suffering from a right, genu-valgum. * * * We also desire to say to Mr. Lecomte du Nony that his "White Slave," otherwise a very agreeable lady, possesses a left elbow which gives rise to serious doubts as to the soundness of the articulation. But perhaps his model had had a luxation which left her a 'punchinello elbow!' Berthault's "Words of Love" fills its decorative mission; but why is it that the lady, so sweetly seated upon the ground, puts forward her knee so prominently? She must be aware that she is suffering from hydrarthrus, but perhaps she forgot.—*New England Med. Journal.*

Random Discussions in Medical Meetings.—The tendency to stray from the point in medical discussions is still far too often manifested. Occasionally the individual whose remarks gave rise to the discussion has the good sense to rebuke the random talk that has passed under that name. Dr. G. Betton Massey did so at a recent meeting of the Philadelphia County Medical Society. He had shown an elastic intra-uterine electrode, whereupon a number of gentlemen made more or less wandering remarks on the general utility and dangers of treating various conditions by means of electricity, but said hardly a word as to the quality of the instrument shown. Dr. Massey seems to have shown no annoyance or displeasure, but simply to have remarked that he had had no idea that the presentation of his electrode would lead to such a discursive discussion.—*New York Med. Journal.*

Johns Hopkins Hospital.—The Dispensary is open daily except Sunday for

the treatment of surgical cases from ten to half past eleven A. M., and for the treatment of medical cases from one to half-past two P. M. Patients will apply at the main door of the Dispensary, on Monument street, east of Broadway.

The Pay Wards and the Public Wards will be opened for patients after Monday, May 20th. Application may be made to the physician-in-Chief at the Hospital any morning before one o'clock, when the terms of admission will be made known. Those who are able to pay for their treatment will be charged according to the rooms occupied and the service required.

In case of accidents, by night or by day, application for immediate relief should be made at the accident door, Monument street, east of Broadway.

During the next week the public may visit the buildings every afternoon. Parties will be taken through the principal rooms at three, four and five o'clock daily except Sunday. As the service of the Hospital is beginning, visitors are only expected at these hours.

Medical Items.

Dr. Breisky, Professor of Gynæcology in the University of Vienna, is ill, and his recovery is despaired of.

The Eleventh Annual Congress of the American Laryngological Association will be held at Washington, May 30, 31 and June 1st, 1889. The Profession is cordially invited to attend.

Among the numerous congressess to be held during the Paris Exhibition is one on Physiological Psychology, which will commence on August 5th and terminate on August 10th. The president is Professor Charcot.

At a meeting of the Medical Association of the District of Columbia, heid May 14th, 1889, the following were elected: *Full.* Drs. F. X. Dooley, W. H. Pugh, W. A. Atlee and James Kerr. *Associate.* Drs. J. S. T. Sessford, and Florence Donohue.

Dr. Frank S. Billings in a recent number of the Philadelphia *Times and Register*, proceeds to annihilate Sternberg and his yellow fever work. By the aid of many italics and quotations from Freire and from a French author whom Billings calls "Megnin," he manages to fill out a very amusing polemic.

The medical editors will hold their annual meeting the evening before the beginning of the sessions of the American Medical Association, June 24th, at Newport, R. I. The president, Dr. W. C. Wile, has arranged an attractive programme of papers and discussions, and likewise a "clam bake."

The thirteenth congress of the Italian Medical Association meets at Padua during some week in the autumn to be fixed by the Central Committee in Rome. Its president will be Professor Achille de Giovanni, member of the Superior Council of Public Instruction, and well-known as one of the ablest consultants in Italy.

Signorina Giuseppina Cattani recently read herself in as incumbent of the newly-founded chair of bacteriology in the University of Bologna. The subject of her lecture was bacteriology in its relation to modern pathology. She was received with great applause. The learned lady is 31 years of age, and has been assistant in the Bologna Pathological Institute since 1884.

Since female students have been admitted to pharmaceutical examinations in Holland, a considerable number not only of young ladies, but of pharmacists' wives, have taken advantage of the extension of th privileges to the fair sex. It is stated that at the last examinations thirty-five women passed, while the number of successful male candidates was only twelve.

A meeting of the Trustees of the Johns Hopkins Hospital was held yesterday afternoon at the Hopkins Hospital office in the Wilson building, Charles and Saratoga streets, and the following appointments were accepted and approved:

Staff of the Hospital.—Physician-in-chief, Dr. William Osler; pathologist, Dr. W. H. Welch; chief of dispensary, Dr. W. S. Halsted; resident house physician, H. A. Lafleur: resident house surgeon, Dr. F. J. Brockway; assistant house physician, Dr. Harry Taulmin; assistant house surgeon, Dr. G. E. Clarke. Consulting physicians and surgeons—Dr. Alan P. Smith, on the part of the Hospital Trustees, and Dr. James Carey Thomas, on the part of the University Trustees. and Dr. I. E. Atkinson, Dr. S. C. Chew, Dr. Frank Donaldson, Dr. W. T. Howard, Dr. Chris. Johnston, Dr. T. S. Latimer, Dr. F. T. Miles, Dr. G. W. Miltenberger, Dr. L. McLane Tiffany and Dr. H. P. C. Wilson.

Staff of Dispensary.—Chief of surgeons, Dr. W. S. Halstead, with the assistance in general surgery of Dr. James Brown and Dr. J. M. T. Finney, and the resident house surgeon, with Dr. S. Theobald in charge of the diseases of the eye and ear, and Dr. R. B. Morrison in charge of the department of diseases of the skin. Chief physician, Dr. W. Osler, with the assistance of Dr. Wm. D. Booker, in the treatment of diseases of children, and Dr. H. M. Thomas in the treatment of nervous diseases and the resident house physicians, with Dr. J. N. Mackenzie of the department of the diseases of the throat.

Original Articles

SURGICAL THERAPEUTICS.*

BY W. B. PLATT, M. D., F. R. C. S,
OF BALTIMORE.

Under this head we may consider all curative, non-mechanical agencies employed in surgical cases, whether after accident, operation, or for surgical diseases.

We may classify them in three principal groups, viz.

Anæsthetics, antisyphilitics, and antiseptics. Such others as caustics and styptics and those whose action is partly mechanical, will not be included. Among a large number we will discuss a few whose use seems to be gaining ground, and which constitute real additions to progress in surgical therapeutics.

ANÆSTHETICS.

There are few new, general anæsthetics which have found favor within the past year, but some interesting experiments have been made with the well known protoxide of nitrogen, which has long been employed for such short operations as extraction of teeth.

It has more recently been used for operations requiring considerably more time. To use it to advantage, the anæsthetizer needs to have a large experience with this agent to maintain a continuous anæsthesia, since the different stages of narcosis are short, and rapidly pass from one into the other unless the administration be carefully watched.

I have performed an operation for the removal of an epithelioma of the face, in which the anæsthesia lasted twenty minutes, was continuous, complete, and in every way satisfactory.

As far as could be seen, the quiet sleep might have been maintained indefinitely.

Ether and chloroform have occupied nearly the same position as for years past, with the balance in favor of ether.

Chloroform is still considered the more convenient, ether the safer agent; and while chloroform may be employed with much less risk than usual, in the cases of young children, women in childbirth, and for anæsthesia on the field of battle, ether may also be used under the same circumstances with at least equal safety, and little more inconvenience. In the case of old people with chronic bronchitis ether is said by some to so increase the bronchial secretion as to endanger life. I am not aware of any cases where this has actually occurred.

Chloride of Methyl, has been employed for local anæsthesia as spray in the place of rhigolene or ether. The previous application of glycerine to the surface to be sprayed, is said to do away with the danger of sloughing which has happened after its use. The advantage of this agent over purified ether as spray for local anæsthesia is not evident.

Cocaine, still maintains its place, although a long list of agents might be presented whose effect is more or less similar. None of these has affected greatly the popularity of the older drug, although a formidable number of cases some of them fatal, have been reported where symptoms of poisoning followed its use.

An alkaloid which has attracted especial attention is, *Erythrophlæine*, the active principle of the African Haya poison. The latter fact was discovered by Lewin of Berlin. He finds it is a local anæsthetic. The effect on the conjunctiva, in producing anæsthesia is similar to that of cocaine but slower in beginning, and lasting much longer, (8—10 hours). Others have had very disagreeable, irritant effects following its use, due probably in some cases to impure alkaloid. The salt used is usually the hydrochlorate.

ANTISYPHILITICS.

The views of two most distinguished surgeons, Jonathan Hutchinson and Verneuil deserve consideration in connection with the therapeutics of syphilis,

*Read before the Medical and Chirurgical Faculty, at its 91st Annual Meeting, April 26th, 1889.

Mr. Hutchinson, still believes that hydrarg. cum creta in one grain doses 3 to 6 times daily, given internally, is the best method of treating syphilis. He gives it with one grain of Dover's powder, for at least two of the daily doses, to prevent diarrhœa.

In a three month's experience at Bayview hospital where there are a large number of syphilitics constantly under treatment, I have found this more satisfactory than any other method of *internal* administration of drugs for syphilis.

Verneuil, (Mem. d. Chirurgie) believes that there is absolutely no substitute yet discovered for mercury in some form, in the treatment of syphilis. He prefers its internal administration, and gives it without iodide of potass.

Inunction, seems to be gradually gaining ground in England and America. It has been for years the favorite method of treatment in Germany. The previous objection that it is an untidy method is now done away with by the use of an oleate of mercury ointment.

McAll Anderson, who prefers inunctions and the hypodermic administration of mercurial preparations to other methods, employs an oleate of mercury ointment for inunctions.

Hypodermic medication in the treatment of syphilis has been practiced more than ever during the past year, and is beginning to gain ground in England and America. It has for several years been used by many syphilographers on the Continent.

The pain produced by some preparations, and the supposed risk of an abscess have been the principal obstacles to its general adoption in this country. Now that the first has been reduced to a minimum, and the second to zero, we may expect a more extended use of this excellent method. The advantages are certainty, and rapidity of action, accuracy of dose, the small amount of mercury introduced into the system; infrequency of the dose, (once a week being in most cases quite sufficient), and convenience to patient and surgeon. The chief difficulty has been heretofore to find a stable, efficient, and comparatively painless preparation for injecting.

The principal preparations now employed for hypodermic use, are solutions of corrosive sublimate, calomel in suspension, the yellow oxide, and the so-called "Gray oil."

The first and the last of these are most worthy of mention.

Bloxam, (*Lancet*, May 5th, 1888,) uses a solution of corrosive sublimate 8 grs. to the oz. of water, injecting 20 minims once a week usually, into the gluteal muscles, not into the cellular tissue.

He claims remarkably good results.

Out of 1924 injections he had but one abscess. The pain is sometimes severe and may continue 2 to 3 days.

He gets better results with a solution of the bichloride of mercury 32 grains, with 16 grains of ammonium chloride in aq. destillat. ad 2 oz. 10 minims equal 1–3d. of a grain of mercuric bichloride.

Of this preparation he has given 600 injections.

The pain and induration are slight.

The physiological effects are usually seen after two injections, then one injection a week will be sufficient.

His experience with calomel and glycerine injections was not favorable. They salivate easily.

When signs of mercurialization follow the use of the mercuric-ammonium solution, B. injects once in two weeks.

After 8 to 10 weeks of this treatment the glandular swellings, and the throat lesions are well. Then inject once a month and give a tonic. The entire course of injections lasts 18 to 23 months. The quantity injected is from 6 to 8 grains of mercury.

B. does not consider potassium iodide curative of syphilis, and calls it "whitewash." When he employs it at all, it is in old "tertiary cases," but symptoms always return unless mercury is employed.

McAll Anderson (B. M. J. Sept. 29th, 1888) uses hypodermic injections of a solution of mercuric bichloride 4 grains ad. aq. 1 oz. injections 15 to 20 minims. The injections are sometimes painful. He precedes the injection by ice locally, and the injection of 1-8th grain of morphia.

He says that the rapidity with which symptoms disappear is astonishing.

Gray oil.—E. Lang (quoted in the B. M. J., June 16th, 1888, from a paper read by him before Soc. of Physicians, Vienna), uses the following formula for hypodermic injections in syphilis.

Hydrarg.
Lanolin, a. a. 3 parts.
Ol. oliv. 4 parts.
M. Sig. for hypodermic use.

This contains 30 per cent. of mercury. Lang found that an injection of 0.3 of the oil for one week was sufficient to cause most of the symptoms to disappear. L. injects 0.1 to 0.15 of the "gray oil" into the buttocks or back in two places during a period lasting from 5 to 8 days. These injections were continued for 2 to 3 weeks when a pause of 17 to 20 days was allowed. He then begins again with the same or a less quantity, until one and a half to two grammes have been injected.

The preparation is well borne. L. prefers *frequent* injections of *small* amounts to larger quantities at longer intervals.

In 5 cases only was he obliged to discontinue the use of the "gray oil" owing to the idiosyncrasy of the patient against mercury.

L. thinks gray oil should be employed in syphilis for the following reasons, 1st. It is efficient with the least dosage of mercury. 2nd. It is convenient for both patient and physician. 3rd. With care there is but slight reaction. 4th Although L. has made several thousand injections he has had no abscesses follow its use. 5th. It can be employed in all cases of syphilis where a general mercurial treatment is indicated. 6th. It can be used with advantage near local products of syphilis. Gummatous infiltrations of the forehead and nose disappear rapidly where injections are made in their neighborhood.

On one occasion he injected it into a sinus leading to a syphilitic deposit in the tibia. A cure followed.

Specific disease of the larynx and nares can be treated by local applications of gray oil.

Hartung, (Viert. J. f. D. u. S. Heft 3) recommends the "gray oil" brought to notice by Lang in 1884, since it allows of great effects by small amount of injection.

Neisser modified Langs formula as follows:

℞ Hydrarg. depurat. - - - - 20.
Aether benzoat. - - - - - 5.
Rub together until ether is evaporated, and then add paraffin liquid - 40.
Rub to perfect liquefaction.
1 c. c. equals 0.41 metallic mercury.

Inject at first 0.25 c. c. once a week. Later twice as much, and further on, 4 times as much. H. claims for this preparation great tolerance and efficiency. He believes it to be indicated especially in cases of visceral syphilis.

At a meeting of the New York Academy of Medicine in 1887, Taylor, Bulkley and Sturgis, testified to the efficacy of injections of solutions of corrosive sublimate, but claimed that patients in America would not tolerate them on account of the pain they caused.

No mention was made of the use of "gray oil."

ANTISEPTICS.

Very little has been done in the way of the introduction of new antiseptics within the last year, although the uses and limitations of some of the older agents have been more exactly defined.

The experiments of Redard, (Rev. d. Chirurg. 1888 5&6) show that a solution of carbolic acid 5 per cent. strength, did not destroy all micro-organisms upon surgical instruments. Pieces of instruments which had been dipped in a culture of anthrax, and then allowed to remain an hour in a solution of carbolic acid, 5 per cent strength, were still fatal in every case when brought beneath the skin of animals. The most practical sterilizer, was found to be steam at a temperature of 110° C. (230° F. This always sterilized instuments in 15 to 20 minutes. Hot air answers well.

Creolin, a coal-tar product has been used by many surgeons, but does not

gain much ground as a liquid for sterilizing instruments. The 5 per cent solution is so opaque as to hide the instruments in the bottom of a tray. It is not expensive, and although cases of poisoning have been reported, they are probably not as frequent as in the case of carbolic acid. More and more attention is paid to thoroughly disinfecting the skin previous to surgical operations.

Iodoform.—The past year has witnessed a fruitful discussion of the antiseptic value of iodoform, based upon observation and experiment in laboratory and hospital. An exhaustive review of the subject to date of March 1st, may be found in the Annals of Surgery of the past month. Van Arsdale, has gathered the observations of 77 competent observers which tend show 1st, That iodoform does *not* prevent the development of micro-organisms in the laboratory in various culture media. 2nd. Clinically, it *does* prevent suppuration when properly employed in appropriate cases. 3rd It probably does this by its action on the ptomaines produced by the organisms, rather than on the organisms themselves, the clinical phenomena of suppuration being due more to these products than to the germs, and hence by neutralizing or doing away with these ptomaines, we get the desired result, although the germs may be present in abundance.

The same is probably true of various other antiseptics of undoubted clinical value, which do not destroy micro-organisms in culture media in laboratory experiments.

859 Park Avenue.

REMARKS ON LAVAGE.*

BY DR. H. SALZER, OF BALTIMORE, MD.

The old Wyman's stomach-pump has of late been supplanted by the more simple method of siphoning. And most probably this modification has caused the more general practice of washing out the stomach. While using, we should keep in view first its Diagnostical second its Prognostical and third, its Therapeutical value. For the first purpose we can siphon out a test-meal, two hours after eating a starchy and nitrogenous food, for instance, bread and meat, and see the extent of digestion on each, and whether the necessary amount of free hydrochloric acid is present; or, it can be done early in the morning, before a meal is taken, to ascertain the amount of mucus, bile, or products of faulty digestion, particularly the amount or presence of free hydrochloric acid, the result of the mechanical irritation of the tube. A large amount of mucus indicates gastric catarrh; if clear and more like the white of an egg and in large quantities, together with distinct traces of free hydrochloric acid, it indicates irritation of a more nervous character; whilst more purulent mucus particularly if intermingled with stripes of blood, indicates a higher degree of the catarrhal process itself, and the presence of bile suggests a complication of duodenal catarrh; whilst a scarce secretion of a thin mucus, with entire absence of free hydrochloric acid, after repeated siphoning, indicates a partial or total atrophy of the gastric membranes, as is especially met with in cancerous affections of the organ or other advanced cachexies. Remnants of food from the previous day, in fermenting condition, would indicate dilatation of the stomach to such a degree that the lower part of the fundus lies considerably beneath the axis of the pylorus, with or without more than a catarrhal swelling and narrowing of the latter. The degree of dilatation attending decreased muscular tonus is further demonstrated by the length of the tube necessary to reach the niveau of the liquid poured in. The microscopical examination of the siphoned out liquids is of comparatively little value; sarcine has long lost its diagnostical point, the absence of cancer cells indicates nothing, whilst their presence could even be misleading concerning the seat of affection; in future bacill-culture might here as well as elsewhere form one of the accomplishments of a practitioner. Prognostically lavage has been

*Read before the Medical and Chirurgical Faculty at its 91st Annual Meeting, April 25, 1889.

of the greatest value to me. The suggestions given above will also hold good in Prognosis as well as Diagnosis. I only wish to add that I have never been mislead in giving a good prognosis in those cases where free hydrochloric acid was eliminated by the early wash, and that in the few cases where this symptom lacked, malignant character proved afterward the frequent coincidence of this occurrence with cancer.

Therapeutically Kussmaul's original idea of emptying the immensely dilated stomach has now been transferred to all the modifications which lay between the normal stomach and this monstrous abnormality; the beneficial influence of lavage upon intestinal peristalsis has been frequently demonstrated in cases of Ileus which had resisted every other treatment, and were prepared for operation. The twofold benefit of relieving the stomach of injurious contents, and the increase tonus given to its contractile elements are out of the question. I do believe that particularly the influence of this decreased tonus and the consequent dilatation by a giving away to the gravity of the contents, the inside pressure of the gas together with the decreased facility of outlet through the swollen pylorus are the usual consequences of each case of chronic catarrh of long standing; and I believe further that the dislocation of the dilated stomach causes changes in the position of the neighboring organs which have, so far, been very much underrated. Ten years ago I attended a case of dilatation shown as one of great extent, by the usual administration of a large quantity of soda water, freely charged with carbonic acid; in this case the right liver lobus projected almost two inches below the ribs whilst the upper limit was accordingly lower, showing that only a dislocation, and not enlargement or pressure from above, had taken place. Two years later the patient had recovered entirely and the projecting liver edge had disappeared, showing that this organ had resumed its normal position. It seems very plausible that the constant pull by the dilated stomach and its contents, most probably through the ligamentum hepatico-duodenale can produce such a dislocation. I am at present attending a lady, in advanced age, with floating liver. Four months ago the lower edge of the organ was on a line with the navel, the constant pains were so agonizing that cancer, gallstones, etc., were previously diagnosticated. To reach the niveau of the liquid in the stomach it took twenty-nine inches of tube, showing that this was not far above the symphysis; after four months of daily lavage (the diet had been kept in the same way and cannot be taken into consideration) the outflow begins with twenty-five sometimes twenty-four inches the lower liver edge is postively one inch higher, and despite entire lack of medication for the past three months, all pains have disappeared.

Another case illustrates the great influence of intense stomach dilatation upon the neighboring organs. A gentleman in middle age showed, at the first examination a year ago, the lower limit of the stomach to be about two inches above the symphysis (by inflation with carbonic acid gas). In his case the organ most affected by the dislocating power seemed to be the pancreas. The characteristic drops of fat in the clay colored stools, together with intense emaciation (going down from 180 to 97 pounds) made his case seem almost hopeless, but the presence of free hydrochloric acid in every morning wash, kept up my courage, and finally under a careful diet (strict milk diet in small but often repeated doses) and continued lavage, the stomach regained its normal position, and from that time a decided improvement commenced, the fatty clay colored stools regained a perfectly natural appearance, showing that with the correction of the position, the impediment to the outflow of the pancreatic and bile ducts had been removed. The patient has now fully recovered in strength, flesh (170 pounds) and health.

From my observations, principally those mentioned above, I am led to believe that the strength of the person and of the ligaments controls the extent of dislocation of the neighboring organs. From the above we can see how effective lavage must be in preventing a disloca-

tion of the organs, caused by gastric catarrh.

The great benefit of lavage in chronic catarrh with a tendency to atrophy and dilatation as well as in nervous dyspepsia with hypo-acid secretions has been clearly demonstrated. However its effect is almost magical in those frequent acute and sub-acute exacerbations of chronic and latent gastro-intestinal catarrhs which present themselves so frequently under the beloved title of malaria. Here repeated washings are often necessary. As these patients are mostly such as are familiar with the manipulations they do not object to ten or twelve lavages in a day. And upon the almost instant disappearance of fever and malaise after the removal of these dirty green fermenting masses the superiority to the usual routine of calomel and quinine is apparent.*

It is well known that in later years pædiatrics make use of lavage in the treatment of cholera infantum and similar gastro-intestinal inflammations in children. I have made use of it in only one case and obtained very good results but if I were engaged in general practice I would certainly use it oftener.

We now come to the methods of application. In introducing the tube all manual power should be avoided. Persuade your patient to assist descent of the tube by deglutition and handle the tube in the same manner as a flexible catheter. In passing the tube over the cricoid prominence the same knack is required, which it takes to turn the catheter around the bone; the further sliding down is very easy. I generally insert the tube to the depth of twenty to twenty-two inches, according to the height of the patient, and mark off this distance on the tube before inserting.

Some persuasion is generally necessary to make the patient retain the instrument for the first few minutes, the feeling of gagging and suffocation makes him involuntarily draw it out; after this difficulty is overcome the patient will retain the tube willingly and lavage can begin. I pour in a certain quantity of luke-warm water, and then lower the funnel end of the tube. If there is no outflow I insert the tube from one to two inches deeper, and try to start siphoning by again pouring in a small quantity of water and lowering the funnel end of the tube. Frequently the stomach starts the flow itself, by muscular contraction; often the flow abruptly ceases on account of the tube filling itself with gas, or by the clogging up of the opening with solids.

The flow will then sometimes start afresh of its own accord, and if not, siphoning must again be resorted to. Touching the bottom of the stomach, with the tube too often should be avoided, as little specks of blood are liable to show, notwithstanding the exercise of the greatest care, although this certainly does no harm. About ten or fifteen years ago I used a Wyman pump which had very hard tubes, some with metal ends. On one occasion in attending a patient I pumped out four ounces of pure blood, yet the patient adhered faithfully to the treatment, recovered entirely and in cases of need depends almost solely upon the wash.

The quantity of water to be used must be very small for the test-meal wash, and only sufficient to bring up the latter, generally about two ounces. For lavage of the empty stomach and for the purpose of emptying and cleansing the same, I generally use one pint of luke-warm water at a time; if the first comes very clear I use another, and if this does not bring anything, I do not repeat the wash until the next morning, but if it shows large amounts of mucus, bile, etc., I continue washing until the water comes tolerably clear; it may sometimes take from five to fifteen pints, I then generally close the sitting with a wash containing bicarbonate of soda or benzoate of soda or mild astringents, or combinations as required, taking care to select doses which, without danger, could be retained in the system in case something should prevent siphoning out the last quantity. I found by long experience that the stomach is very sus-

* Salzer, Diet, Transactions Medical and Chirurgical Faculty, 1888, page 3.

ceptible to irritating doses of lavage; for instance: one grain of nitrate of silver to a pint of water, even if every drop returned by the siphon, seemed to irritate the membrane, more than the same dose given internally as a pill or by an enema. Most of my patients after three or four applications learn to use the wash themselves and only from time to time use lavage in my presence, so that I may see how they are progressing, by observing the character of the washed out liquids, the length of tube necessary to be inserted, the increased facility of the outflow by better tonus, etc. I then advise them according to these observations to lessen the frequency (for instance: instead of daily, two or three times a week) prescribe other additions to the wash, and try their digestive power by another test-meal, and arrange new diets accordingly. There is certainly no other treatment in existence where we are equally apt to control and observe progress of disease and recovery.

A NEW OBSTETRICAL FORCEPS.*

BY L. E. NEALE, M.D., OF BALTIMORE.

Demonstrator of Obstetrics in the University of Maryland; Visiting Physician to the Free Lying-in Hospital.

I believe it is generally admitted that the obstetrical forceps has saved and probably ever will save far more physical suffering and human life than any instrument devised by man's ingenuity. Therefore it would seem that any honest endeavor to really improve this instrument should at least deserve the attention of the medical profession. Surely this would be nothing more than the simplest and plainest justice.

The instrument to which I invite your attention to-day is, in my opinion, an improvement in the obstetrical forceps and I only ask that this bona-fide assertion be submitted to the practical and crucial test of actual experience. To avoid any ambiguity or disingenuousness and to tell the plain unvarnished truth to the best of my knowledge, this instrument is really my modification of Prof. Wm. T. Howard's modification of Tarnier's forceps.

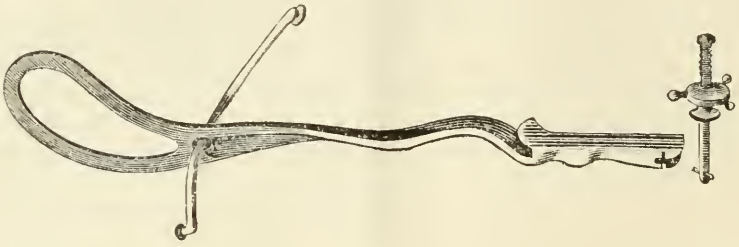
To call it "Neale's Forceps" for short would be an easy way out of the difficulty and therefore probably one that may be used, but it is not absolutely correct for I have merely modified in attempting to improve an instrument the design of which has been participated in by a large number of other gentlemen and it is certainly very remote from my intention to steal away any honor or praise from these other worthy gentlemen whoever they may be. The four special advantages of the Tarnier forceps (1) axis traction, (2) traction directly from the head, (3) an indicator for the direction of traction, (4) non-interference with rotation on account of the universal joint, are in my opinion very desirable advantages in any obstetrical forceps.

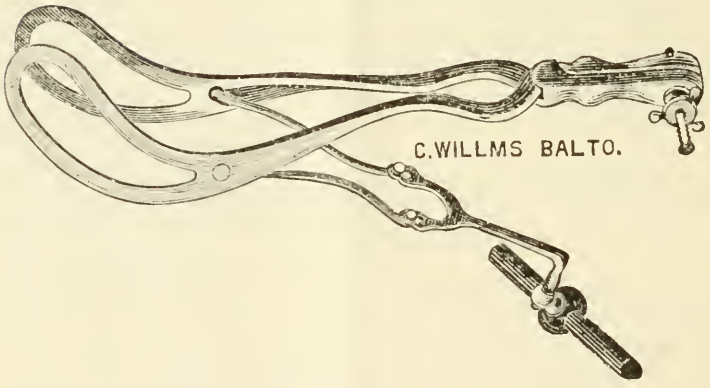
Not that they are to be employed in every case (for in the vast majority of cases the ordinary non-axis traction forceps will answer every practical purpose) but that they should be at hand to be used, of course only when required. I have therefore worked with those who seek to combine the peculiar advantages of the Tarnier instrument with the well-known powers of the more common non-axis traction forceps. Hence a 'Combination Forceps' seems to me a desideratum. Such an instrument I exhibited three years ago before this society and such another instrument I now present believing it to be a decided improvement upon any other forceps with which I am personally familiar.

In describing the instrument I shall try to render unto Cæsar the things that are Cæsar's by stating that the pelvic and cephalic curves of the blades are essentially the same as those in Prof. Howard's forceps which in my experience have never slipped and that the traction rods are held to the blades by the button-hole joint and concealed under the shanks of the instrument according to Prof. Tarnier's latest design. The dimensions of the instrument are:

Length 14¼ inches; Length of handle 4 inches.
Greatest breadth between blades, 2¾ "
" " " tips, ⅝ "

*Read before the Medical and Chirurgical Faculty at its 91st Annual Meeting, April 25, 1889.

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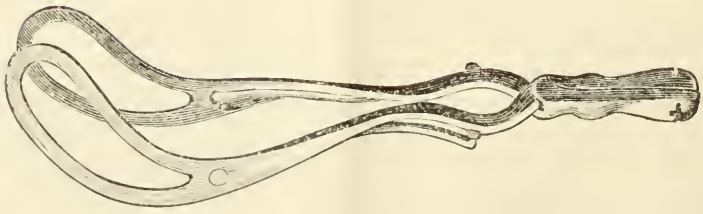

Each blade presents a smooth highly polished metallic surface throughout from end to end, there is no roughened hard rubber, thread, screw or other dirt hole, hence the instrument is peculiarly cleanly and antiseptic. The proximal ends of the traction rods are slightly sprung and by a simple catch held to the outside edge of the shanks, without the usual catch pin. The Simpson lock is adopted. The three inch long, entirely removable reversible compression screw is placed in a slot at the ends of the metallic handles which are unaltered in their outline and present no difficulty in cleansing.

From the lock the shanks curve round in a ring for the insertion of a finger as in Barnes' forceps thus securing the grip and the lock. The traction-rod hook or key is merely a bar of metal terminating in a fork or prong with button-holes to catch over the proximal ends of the traction rods, while the other end forms part of the rotary joint of the hard rubber handle. All easily cleansed, manipulated and of the simplest design. The blades are as narrow as those of Hodge, but very little thicker and their tips do not jut out from the sides of the head thereby endangering the perineum and soft parts. The instrument is antiseptic, comparatively light (℥ xxi–℈ ii) of graceful outline and powerful.

It is designed to meet the requirements of all kinds of forceps operation—high or low—easy or difficult as the traction rods are in position before the blades are introduced. As far as my experience extends it will deliver any case that can be delivered by the obstetrical forceps.

Made and sold by Mr. Charles Willms, of this city. Price $20.

Fissures of the Tongue.—These obstinate and painful lesions may be speedily cured, according to Schwimmer, by applying the following mixture five or six times daily:

℞ Papayotine . 2 parts;
Glycerin, aquæ. āā 10 " M.

—*Revue de thérapeutique*, Oct. 15, '88.

INTESTINAL AMASTOMOSIS.*

BY ROBERT ABBE, M. D.,

Surgeon to St. Luke's Hospital, New York; Consulting Surgeon Hospital for Ruptured and Crippled; Professor of Clinical Surgery Post-Graduate Hospital.

About three years ago a lady came to me from the South with a fecal fistula in the right groin, resulting from the sloughing of five inches of intestine in a strangulated hernia. Three physicians had made intelligent operative efforts to close it, and left her only worse off, as the distal end had slipped back and been lost in the abdomen. The case was a challenge to surgical skill. During several months I made careful and conscientious attempts to cure her. At first, the abdomen was opened to search for the distal end; it could not be found. Therefore, I stitched the proximal end and the ascending colon side by side in the wound, and a few days later opened the colon. A permanent channel was thus established between ileum and colon, when the fistula was capped, and some movements occurred per anum. Dupuytren's enterotome was then applied, and the spur cut through for two and a half inches. Still the big fistula leaked most of its contents.

Two elaborate plastic operations were then done, using the abdominal skin after the manner of Czymanowski, by which I had closed urethral fistulæ. But these proved futile, and she remained with the usual excoriated abdomen, filthy wound, and marasmus. My colleague, Dr. McBurney, then tried a partial resection of the edges, with inversion and suturing, and from this operation she died.

I have narrated briefly this case to illustrate what you know represents a considerable class of sufferers whose fecal fistulæ until very recently baffled the surgeon. Such cases rankle in the memory of us all, as marking the limit at which successful work comes to a halt. To-day, thanks to the untiring energy and genius of Dr. Senn, of Milwaukee,

*Read before the Philadelphia County Medical Society. May 8th, 1889.

such, and many other cases, can be offered the hope of immediate relief by intestinal anastomosis.

The principle of intestinal anastomosis is by no means new. It is on the technique of operative procedure only that its appeal to renewed favor rests. I need not narrate to you the methods formerly in vogue to restore the intestinal canal. Plastic operations, resections with circular entororraphy, and lateral apposition with suturing, have had a certain value for many years; the unanswerable objections to them all being a dangerous consumption of time, frequent leakage, and secondary abscesses. With Senn's researches, new life has been infused into this branch of surgery. I will not review his work, but remind you for the moment that it covers the ground of experimental production of intestinal flexion, volvulus, stenosis, invagination, and resection, and in reparparative work the study of two methods of restoring the intestinal canal—lateral implantation of a smaller into a larger gut, and lateral apposition of openings into similar portions of bowel. The outcome of it all has been an anastomosis of an interrupted intestinal canal by the safe and speedy method of using decalcified bone plates for approximation. I believe the value of this method will soon be recognized everywhere. His experiments have already been repeated by several and the results uniformly verified.

Those done by Mr. F. B. Jessett and Mr. Victor Horsley, and reported six weeks since to the Royal Medical and Chirurgical Society, are noteworthy. Jessett adds his statistics to those of Senn and Curtis, and finds that approximation by the Czerny-Lembert method showed a mortality of about 86½ per cent. against 25 per cent. by the method of lateral implantation, and 7½ by means of Senn's bone approximation disks. A method which thus offers an advantage ten times as great as the old one in mortality, and that can be done in one-third or one-quarter of the time, may well inspire enthusiasm.

The application of this principle to man has as yet been limited. Dr. Senn has in six cases applied the plate method in gastro-enterostomy for cancer of the pylorus with results detailed in four of them in his *Intestinal Surgery*. The two recently done are also successful.

Dr. Fenger, of Chicago, and Dr. Hunter, of Minneapolis, have also used them. Successful each in one case. Dr. Ransohoff, of Cincinnati, operated Dec. 31st for gastro-enterostomy by plates in a case of malignant pyloric stenosis with excellent success.

An extended search fails to find other recorded cases. My own experience includes some experiments on dogs, and two successful applications to the human subject. The man whom I first operated on lived three and a half months after I united his ascending and transverse colon by Senn's plates on either side of a malignant stenosis of the hepatic flexure of the colon. His case has been fully reported in the *New York Medical Journal*, March 23d, last.

The essential points of the case were, progressive obstruction, enormous fecal accumulation, marasmus, and finally collapse—relieved by a colotomy done when he was *in extremis*, and followed six weeks later by colo-colostomy with Senn's plates, November 14th, 1888. After this he rapidly gained and in three months was enjoying excellent health. Suddenly there ensued a painless diarrhœa that could not be checked. Rapid emaciation and death followed in twenty days. Autopsy showed that nature had made an artificial opening between the duodenum and transverse colon at the site of malignant stricture. Thus all the small intestine had been excluded and food passed practically from his stomach directly into his colon undigested; and starvation followed.

The specimen which you see shows perfectly the aperture between the portions of colon. It is an oval the long diameter of which is an inch and a quarter; nearly as long as the incision made three months before. It shows there is little to be feared from the contraction of the opening, and it also shows that an opening very much smaller than the diameter of the bowel is competent to allow one part to empty into another.

I would have been very glad to have been able to make a larger opening, but this was about the maximum possible by using Senn's plates. The patient had had daily evacuation of the bowels, but it had been half the time through the use of mild cathartics. A larger opening would have obviated the use of these.

The needs of this case, coupled with the fact that I had not been able to get large enough plates to suit the colon, and that the preparation of decalcified bone plates consumed several days and considerable labor, led me to review the ground that had been gone over to get a more available material. I was aware that almost every known soluble substance had been tried, including cartilage which Jobert and others had used. I devised a ring of rubber made in segments fastened by catgut which would fall apart after a few days, but abandoned that when I made a stiff one entirely of catgut, which, being wholly digestible, would accomplish what the plates of bone would and then disappear. I made some small sets and tried them on a dog, with the assistance of Dr. Weir and Dr. B. Farquhar Curtis. The beautiful results are seen in these two specimens. When the gut was cut, the ends were invaginated and sutured by continuous Lembert stitch. The two ends being laid side by side, a longitudinal cut was made in each near its end, a ring slipped into the gap in each and four sutures on the ring stitched through the edge of the gap. The corresponding threads now being tied, pulled the two rings together, and the edges of the opening were thus sandwiched, as it were, between two rings. Four extra silk stitches were added outside to prevent the lips of the cuts puffing out between the first threads.

The proof of the security of apposition is seen in the dog's recovery. Evacuations were free and regular after the operation, and each of these specimens were taken out with the dog in perfect health nine days after the operation. The union was so perfect that the intestine would have burst elsewhere sooner than have given way at this place. The catgut had entirely gone; a few of the silk threads that held them were yet loosely hanging in the puncture points, ready to come out on slight pulling. The coils of approximated gut, though performing their functions well, showed considerable contortion, and in two later experiments, the results of which are here seen, I turned the divided ends to look in opposite directions with better result. These were done on the same dog at the same time, and were made to show a class of physicians the advantage of this method where multiple resections of the gut might be called for, as in gunshot wounds. Four inches of intestine were cut out at each place, and the catgut apposition rings applied, the ends being reversed. The result has been perfect. A very large aperture of communication has been obtained by the long narrow ring, which so easily slips into the bowel. The twisting of the adherent coils was not nearly so much as in the former case. I am convinced that by the two expedients of using long narrow apposition rings to obtain a large opening, and by placing the intestines as suggested, to obtain continuous peristaltic wave, we obviate a temporary blocking of the operated part which must obtain with the bone plates and small openings, and which leads to much twisting.

In this experiment it took exactly fifteen minutes to resect and complete each apposition. This includes a continuous outside silk suture around the circumference of the ring, which was applied quicker than half the number interrupted sutures could have been.

An opportunity now came to put in practice the method above described. In November last a woman of slight build and thirty years old came under my care at St. Luke's Hospital, with a history of uterine disorder for two years, and presenting a small tumor in the right iliac fossa. She had vomited, become anæmic, suffered much local pain, and had developed night-sweats with slight hectic. Pyo-salpinx was diagnosed and operation advised. A five-inch median cut was made above the pubes. The diseased mass with omentum and

coils of small intestine intimately adherent, was found to be a suppurating ovary as large as a goose-egg. Some intestines were stripped off, others seemed too firm. One of my assistants, a distinguished disciple of Mr. Tait, being asked to examine to see whether the tumor could be removed, or whether it had best be scraped out and drained, succeeded, while examining, in digging the ovary from its bed, after the manner of Tait, who says no tumor of this character need ever be left no matter how firmly adherent. I was surprised and delighted to be shown that this mass could be thus removed by the fingers. Nothwithstanding that the suppuration had been disseminated in the wound, it was readily douched away by copious hot-water effusions; but great chagrin followed the immediate discovery that a circle more than an inch in diameter had been torn from the side of an adherent loop of intestine and was on the tumor. Feces appeared at once in the deep culde-sac of the pelvis. I promptly found and sutured the damaged bowel, irrigated and applied a tamponade of iodoform gauze lightly, and closed the wound except for drainage. Two days later, feces welled up in the wound, and a horrible, and, I feared, a hopeless fecal fistula was thenceforth established.

During the following six months the patient passed through not only the suffering incident to her fecal fistula, but also a severe attack of scarlet fever with acute desquamative nephritis. And when I returned to hospital duty I found her emaciated and weighing less than seventy pounds. Her abdominal wound healed, except over the pubis, where a long funnel-shaped wound, lined by poor granulations, gave vent to her entire fecal discharge, which came from the depths of the pelvis. The skin about it was sadly excoriated, and too tender to allow adhesive straps to retain dressings. She was of a cheerful disposition, and hopefully looked to me to relieve her, even at the risk of life, which had become a burden. With the picture in my mind of the intestines matted together, and in the midst of all a portion whose lumen was destroyed, from which feces poured in the site of the ovarian abscess, I looked upon the case with grave doubt of cure.

The more so, because she had been subject to a hectic, with daily exacerbation of temperature to 102° and 103° up to the day of operation. My experiments with intestinal anastomosis, however, gave hope, and on March 22d—six weeks ago—I operated in the presence, among others, of your President, Dr. Keen.

Ether anæsthesia was used, notwithstanding she had five per cent. of albumin in her urine.

I dissected out the poor cicatrix around the funnel-shaped fistula, and opened the laparotomy wound upward. The intestines in the entire lower abdomen were matted firmly together, and uniformly studded with miliary tubercles. The pathologist's report confirms this, and I presume the original ovarian mass was a tubercular ovary, though I regret to say it was mislaid at the operation. With great care the intestine leading to the fistula was dissected out on either side of it for four inches, and cut squarely across. The ends were then turned in for half an inch and closed by a single row of continuous Lembert sutures of fine black silk. It was impossible here to turn the ends in opposite directions, and they were laid side by side, split open longitudinally for an inch and three-quarters, nearly to the end, and united by catgut apposition rings, with a half-dozen reinforcing silk stitches outside. The entire wound was douched liberally with hot water, and a portion of the deeply adherent gut between the cut ends was further dissected away. The wound was closed, except for a light tamponade of gauze at the site of the fistula.

The patient rallied nicely, had no pain whatever afterward, and no feces came into the wound. She had a little vomiting the next day, but retained koumys and champagne, an ounce every two hours, in drachm doses. At the end of the fourth day, her temperature having risen to 102°, I gave liq. magnes. citrat. ℥jv, and repeated. Three natural and painless movements passed by the rectum for the first time in six

months, and her temperature fell to 100°.

Daily movements took place from that time on, at first assisted by four ounces of magnesia every third day. The wound granulated nicely, and no feces have ever appeared there.

The patient walked about after the fourth week, and is restored in appetite and health. She now gains three pounds weekly, is free from pain, and is making a happy convalescence. Her evacuations are normal and regular, well formed, and occur without the use of medicines.

Thus is completed a proof of the efficacy of a new method, treating a malady which I know of no other method as competent to cope with.

I can hardly conceive of a fecal fistula in any part of the bowel (except, perhaps, low in the rectum), that may not be safely cured by this method, provided the distal portion is not blocked by disease.

In cases of gangrenous hernia, bullet or other wounds requiring exsection of a portion of the bowel, it may be applied at once, or after an artificial anus is established and the patient is convalescing.

No surgeon or physician need hesitate to make a fistula to relieve obstruction, or in other suitable cases where the equipment to complete the immediate anastomosis is not at hand, or where the patient's condition will not endure much interference, as in the first case narrated.

Two weeks ago my friend, Dr. Charles McBurney, applied a set of my catgut rings to a case of gastro-enterostomy, and writes as follows:

"The case was one of cancer of the pylorus which caused total obstruction. The patient would not consent to an operation until he was nearly moribund. The anastomosis was made between the highest part of the jejunum and the anterior of the stomach, near the greater curvature, and about three inches from the pylorus.

"The operation was perfectly easy and rapid, and the rings acted perfectly. The whole operation took forty-five minutes, much time being lost on account of imperfect washing of the stomach beforehand. I think it could easily be done inside of thirty minutes.

"Death occurred from inanition about twelve hours later. On careful post-mortem test, the stomach being filled with colored fluid and held up, absolutely no leakage at the site of operation occurred.

To make the rings most efficiently the following steps must be observed: A moderately heavy catgut is chosen; taken from alcohol or juniper oil, it is wound losely on a test-tube and soaked in hot water. It soon kinks up, and were it not on a tube could hardly be unravelled. After a while it is straightened out, allowed to untwist, wound again loosely, and soaked in hot water once more, until it ceases to twist. It is then ready to make up into rings, which will lie perfectly flat. Eight or ten turns over two pins stuck in a cork two inches apart, with make a bundle somewhat smaller than a lead pencil. These may be tied at four places with fine silk, to secure the strands parallel while being wound round like a cable, with a continuous piece of the same catgut. The end of the piece is secured by threading it into a Hagedorn needle, and trans fixing the whole bundle obliquely with it at the place of finishing. Thus there are no knots, and it is difficult to find the point of beginning.

The ring is now a long oval with an inside diameter of two inches, and in thickness smaller than a pencil. Six strong but small braided silk threads are now fixed to each ring, equidistant, on the face looking toward the other ring which is to be laid against it.

No knots are used. A needle pierces the ring between the strands, carrying the thread, which is drawn through, all but 8 in., and wound once and a half round, sinking between the encircling catgut, piercing the ring again, and cut off. The rings, which have now been water-soaked are ready for use, if needed for emergency; but, if possible, they should be kept awhile in alcohol, under pressure between two glass slides, the threads being curled up within the oval, and the sides being pressed together

after the glasses are tightly tied together. The ring thus becomes a long oval with parallel sides, and becomes harder and flattened on its faces. Moreover, it shrinks a trifle in alcohol, to swell again in the intestine and give additional security.

In using the rings, I find it saves time to have each thread have its own needle. The intestine is pierced from within outward less than a quarter of an inch from its cut edge. The ring should be laid on a damp folded towel with threads in order and needles stuck in the towel, which is held by the assistant close to the bowel, while the operator quickly pulls the threads through and passes the ring into the interior of the bowel. When the threads are tied and cut off, the apposition is perfect, but by a quickly made running suture outside all, a half inch of peritoneal surface is at once secured beyond the possibility of leakage. More than this is superfluous, for the edges held between the rings act as valves.

In invaginating the end of the cut intestine after exsection, one will delay a long while if he tries to turn in first one and then the other edge, and will also find the mesentery try to turn in after it on the attached side. My rule is to trim back the mesentery at least a half inch from the end. Then seizing both lips with toothed forceps, plunge them directly into the lumen. The entire edge usually follows, and one holds them by the left index finger and thumb while a quick running overhand suture of the slit thus formed is made.

Correspondence.

VARICELLA IN ADULTS.

Editor Maryland Medical Journal:

Dear Sir:—You request an answer to the inquiry of your correspondent, Dr. Thomas O. Clements, of Dover, Del., respecting the susceptibility of "adults or grown persons," to chicken pox. Addressing you personally, he asks; "have any of you or any good authority, ever seen a case?" He then says, "I am getting statistics on varicella or chicken pox and am not able to find one recognized authority that has ever seen a case." "Also I want the best statistics on small pox."

Can it be possible that this doubting *Thomas* of Dover, Del., is skeptical also as to the reality of the disease called small pox? If so his surname is not "*Didymus*," for he has no twin brother sharing such a want of faith as this.

In answer to the question as to the possibility of varicella in the adult, I feel at liberty to say that, in a practice extending over more than a quarter of a century, I have seen more than *one* case. But not deeming it necessary to collect statistics to prove that adults may have chicken pox, I did not make special note of them. I believe that all standard medical authorities teach that adults do have chicken pox. Dr. Gregory, of England, gives several clear cases that came under his observation. Varicella is a specific disease, resulting from a specific contagium; and like whooping-cough, measles and scarlatina, if not taken in early life one may have it after maturity.

His request to be furnished with "the best statistics on small pox," is too vague and indefinite to merit an answer. Does he want statistics to prove that there is such a disease? Or that no "adults or grown persons," have it? Or does he seek them to prove that it may be prevented by timely vaccination? Abundant statistics may be found in any complete work on the practice of medicine in answer to all the foregoing questions.

But why should Thos. O. Clements, M. D., of Dover, Del., call on the doctors of Baltimore, for statistical instruction? I am persuaded that Dr. Bishop or Dr. Wilson, of his own town, both well educated, scientific physicians, can supply him with all the statistics he needs to get—with all his getting.

Medicus.

PRISON PHYSICIANS.

SPRINGFIELD, ILL., March 5, 1889.

Editor Maryland Medical Journal:

[NOTE.—The following letter has been sent to all the prison physicians in the United States.]

DEAR SIR:—I do not know whether or not your attention has been called to the work of the National Prison Association, but I presume that you know something about it. We hold our next annual meeting in Nashville, Tennessee, next October, where it is proposed to organize the prison physicians of this country into a separate, auxiliary society, such as the prison wardens, and prison chaplains have organized among themselves. As Dr. John Morris, of Baltimore, observed at Atlanta "The physician is of all men the fittest to deal with the criminal. The prisoner will open his heart and unveil his secret nature to the physician in preference to the chaplain or other officers of the prison." The sanitation of prisons is of course one of the most important features of prison discipline; but the physician who has had large experience in dealing with convicts is especially qualified to speak intelligently on the question of criminal character as it is developed and modified by the prisoner's physical and nervous organization. It is our great desire to bring the work of the prison physician into greater prominence and to make that officer more influential for good in all matters relating to the welfare and to the mental and moral as well as physical improvement of the unfortunate victim of crime and of law. My object in addressing you this letter is to inquire of you whether you would be willing to co-operate in a movement for the establishment of such an association as is here suggested; and also to invite you to attend the meeting at Nashville and take part in its proceedings. Hoping for the favor of an early reply,

I am, with respect, very truly yours,

FREDERICK H. WINES,
Secretary N. P. A.

Society Reports.

CLINICAL SOCIETY OF MARYLAND.

STATED MEETING HELD APRIL 5TH, 1889.

The 225th meeting of the Clinical Society of Maryland, was called to order by the President DR. GEORGE H. ROHÉ, in the chair.

Dr. J. Mason Hundley, was elected a member of the Society.

Dr. I. E. Atkinson's paper, read at last meeting,

ON TREATMENT OF TYPHOID FEVER,

was then discussed.

Dr. J. G. Wiltshire said he can recall the interest he felt in the paper read by Dr. Atkinson, at the last meeting of the Society, on the treatment of typhoid fever, and that he wishes to be recorded as favoring the plan of treatment so ably set forth by that gentleman. In discussing the treatment of typhoid fever he suggested that a suitable room be first selected for the patient, that it be large and easily ventilated; a second bed be convenient, so the patient can be placed on it in the morning with a view to rest, cleanliness, and change of clothing. A bath tub should be at hand. The dietary is the most important thing to look after; and it should consist of water, proteids, fats, and carbo-hydrates, the latter causing less inconvenience to the patient, and go further towards preventing destruction of the proteids and fats of the body than any of the elements of food. Milk is the best and most universally accepted article of diet and it contains the fats, proteids and carbo-hydrates in nearer the proper proportions than any of the known foods. One to one-and-a-half litres should be given in twenty-four hours. Von Ziemssen gives one pint in twenty-four hours. Attention to the temperature is the desideratum in the management of typhoid fever. When the rectal or axillary temperature exceeds 102.3°F., or 102.5°F., the proper antipyretics and

apyretics are indicated. The first of the former class is antifebrin; its claim to first place over antipyrine must be found in its requiring less to do the same amount of work, its therapeutical effect manifesting itself earlier, that effect being more persistent, its freedom from producing ill effects upon the heart, and its cheapness. He would as soon think of expunging milk from the dietary of his patient in typhoid fever, as to withhold alcohol from the treatment. Its use requires care, for too large doses, or too continuous use will be followed by depressing, even paralyzing effects upon the cardiac muscle; whilst proper doses strengthen and energize it; at the same time lower the temperature by radiating heat from the dilated capillaries; it is also accessory food, by virtue of it preventing destruction of certain tissues of the body.

Inordinate secretions must be stopped with astringents. Opium acts nicely in this capacity, at the same time quiets the bowels. Keep the temperature well in hand, and as a rule, the safety of the patient will not be threatened by excessive secretions from the several emunctories. Just here I am strongly tempted to utilize the views of Koch and Elroth, who have demonstrated that the etiology of typhoid fever is found in a specific, pathogenetic poison, the active agent of which is typhoid bacillus, whose chief gate-way of entrance to the body is the alimentary canal, when it attacks, and produces necrosis of the lymph glands chiefly. If this be true we are assuredly justified in addressing our antiseptics, and antizymotics, such as iodine and carbolic acid, to that canal. From what I have seen of their effects in the treatment of this disease, and of the reports of others, I am prepared to throw the weight of my testimony in favor of their efficacy. The glands of Peyer do not perforate so often, the hyperpyrexia, delirium and heart failure are not so noticeable; altogether the prognosis is more favorable, than when antipyretics and milk diet are alone relied on.

Dr. James M. Craighill, said that he thinks it is sometimes very hard to make a diagnosis of typhoid fever in this climate when the disease is first beginning. Last fall he had a series of these cases which impressed this fact very decidedly. In one family he had three different cases, two of which were typhoid fever and one was doubtful, the symptoms of this latter case simulating strongly those of malaria. He fears that the cold water treatment is not so good in private practice, especially in the hands of the younger members of the profession in view of the prejudice so often entertained by the laity on such matters.

Dr. W. H. Norris said that we have a great deal of theory in medicine and he has about concluded that theory has killed about one-half of the population. He then related in detail his large experience in the treatment of typhoid fever during the late war. In reference to the cold water treatment he said that his experience with it, until recently, had been very small, but he believes that excellent results are obtained from its use and we must educate our patients up to it.

Dr. Whitfield Winsey said, that numerous papers have been written directing attention to the antipyretic treatment of typhoid fever and the theory upon which they base the action of these remedies is the good which they do in reducing the high temperature. That idea, he thinks, is now exploded. These remedies do not have any specific action on fever and some even say that the disease is not cut short at all and that after their employment relapses are more apt to occur. He then quoted some statistics bearing on this point. We must not be carried away with the idea that by reducing temperature we cure our patient. The cold water treatment gives the best results, and the only thing against it is prejudice. By its employment patients are made more comfortable, temperature readily becomes lowered and statistics show that good results follow its use.

Dr. W. H. Norris said that he believes that typhoid fever is a self-limited disease and that the environments have a great deal to do with the mortality. During the late war he found that patients did much better in tents than elsewhere.

Dr. I. E. Atkinson said that he does not use antipyretics alone in the treatment of typhoid fever. Food is most important, but we must remember that its assimilation is necessarily slow. Consequently we can easily give too much; too much milk for example, and for that reason we should always be guarded on this important point.

Dr. Jas. M. Craighill read a paper on a case of

CHLOROFORM NARCOSIS.

Dr. Randolph Winslow said that the patient just reported by Dr. Craighill had taken chloroform on two previous occasions without any difficulty or bad symptoms. At the end of the second month after confinement she underwent an operation. The night before the operation she attended a ball. The anæsthetic was administered by Dr. Latham and skilfully performed. Her heart failed first and then respiration ceased; she had not the least signs of life and this continued for a good, long time, perhaps five minutes or even more. Artificial respiration was carried on persistently and after a while her heart began to beat. Amyl nitrite was then administered, its physiological action took place immediately and no unpleasant symptoms followed. The operation was continued under the influence of ether and all went well.

Dr. I. E. Atkinson said that he had looked into this subject a good deal. A discussion of the different anæsthetics is coming up all the time for our consideration. All of us have seen cases, even if not of death, very alarming in their nature. The evidence is that when we administer chloroform we do so with some risk. It is more easily given than ether, more pleasant to the patient, etc., and for that reason it is more frequently administered. Experiments on animals show chloroform to be very dangerous. Ether is far safer and gives better results. The reflexes in chloroform are abolished very early; in ether they persist much longer. The dangerous symptoms of chloroform come on early; in ether they are later. Incomplete anæsthesia is the cause of many cases of death. The anæsthetic should always be administered by those most skilled in the art. We will always have some deaths to occur from whatever anæsthetic we may employ.

Dr. F. M. Latham spoke of the administration of the anæsthetic in this case and the manner in which the alarming symptoms came on. The action of the amyl nitrite was most beautiful; very shortly after its administration the face became flushed, and all went well with the patient afterwards.

Dr. W. H. Norris said that the French Academy of Medicine, had concluded to discard ether and decided that chloroform was the safer of the two drugs.

Dr. Jas. M. Craighill, said if Dr. Norris will look up the statistics of this subject he will find that more deaths occur from chloroform than from ether. Your patient dies suddenly from chloroform; from ether the bad results come on later from some complications.

Dr. Hiram Woods read a paper on

A CASE OF PERIODICAL ŒDEMA OF THE LEFT EYELID DEPENDENT ON A UTERINE LESION.

Dr. Vernon L. Norwood said that he had seen a case at the Maryland University Dispensary in which there was present a localized œdema of the jaw without any evidence of inflammation present. It could be traced to no cause.

Dr. Wilmer Brinton read a paper on

A FATAL CASE OF HEMORRHAGE FROM A NORMALLY IMPLANTED PLACENTA.

W. J. Jones,
Rec. Secretary.

1238 Greenmount Ave.

One of the positions as Lecturer on Clinical Medicine and Visiting Physician to Bay View Hospital on behalf of the University of Maryland is now vacant. Dr. Michael, No. 937 Madison Avenue, will receive applications for it.

MARYLAND MEDICAL JOURNAL

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WILLIAM B. CANFIELD, A.M., M.D., Editor.

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BALTIMORE, JUNE 1, 1889.

Editorial.

SHALL PHYSICIANS ADVERTISE?—This is a question to which many would be tempted to answer "No," without further thought. The answer should be the proper one but it is not a question to be dismissed without further consideration. In some parts of this and the other hemisphere, physicians in good standing put their name, address and office hours in a part of the daily paper set apart for such notices. If such notices could be confined within these limits, it would probably no more degrade the profession than putting the same thing in the city directory, and even paying something extra for large type.

When a visitor at one of the larger hotels is taken sick and sends to the clerk for Dr. A., Dr. A. often does not come, because the clerk and Dr. B. have a private arrangement, by which the latter is to be called, no matter who is sent for and the fee is divided. If the invalid could consult the daily papers and find the name and address of Dr. A., he could be sent for without the intervention of the hotel clerk.

One way in which physicians, or more strictly speaking surgeons, do advertise, and this has been too frequent of late, is in the local columns of the daily papers. The zeal and interest which has attended the opening of one large hospital recently and which will attend the opening of another very soon, has caused the reporter in his search for news, to go a little too far; and within the past months notices of difficult operations (probably amputation of the breast or circumcision) successfully performed by this or that doctor, have been recorded in the daily papers. Of course no one for a moment suspects that the surgeon concerned knew that a reporter was near. They never do.

Seriously speaking, however, such modes of making one's self known to the public are, to say the least, very bad form. Physicians, also, are no more free from blame, and few fail to keep their names out of print when attending a wellknown citizen, and occasionally testify as to the health of actors and actresses in very conspicuous parts of the paper. Accident cases are liable to come under any physician's hands. Then what happens is news, and all names and facts are apt to be published, but even reporters and policemen will omit the physician's name if he requests it, as all very well know.

One way in which the physicians of this city do not sufficiently advertise is through the columns of the medical press by able articles. There are men in this city the peers, if not superiors of their colleagues in any other city of this country. They say they have no time to write. That is true. Time is money. Baltimore is not a wealthy city, the fees are ridiculously small, men high in the profession purposely charge small fees with a view to competition, consequently the physician or surgeon who makes $5,000 a year is probably doing as well as he ever will do. It takes continuous work to make this sum, too. Again, so many physicians have been obliged to scramble through the two year's course and begin to practise as soon as possible as a means of support, that, unless exceptionally gifted, they do not know how to write, even if they would.

If we must advertise, let it not be through the local columns of the daily papers, but through good articles, through the skilful management of a case, and if necessary, by a simple line in the advertising columns of the dailies, giving name, address and office hours and further nothing. This may sound heretical to the good old conservatives in medicine, but it is only suggested as a much less evil than the underhand advertising so often practiced.

Treatment of Cancer by Electric Current.—Dr. Parsons gives (*British Medical Journal*, April 27, 1889), his views in regard to the nature of cancer and publishes four cases, in patients who refused surgical operation or were beyond operation, in which he obtained good results by the use of a powerful interrupted voltaic current.

The cells of cancer, he thinks, are natural tissue-cells, which have been aroused by some stimulus to active growth, but which have escaped from the control of the nervous system, which would have confined their growth within proper limits. Cancer tissue is devoid of nerves, but has a vascular supply.

Remedies applied through the blood would therefore be likely to damage the healthy cells of the body before they could seriously affect the cancer cells. The healthy cells however possess a power of recovery from injury, which the cancer cells lack, so, if an agent of great intensity could be for a very short time locally applied, the cancer cells might be injured beyond recovery, while the normal cells would gradually regain their former condition of health.

Experiments instituted by Dr. Parsons showed that the passage of a constant current did not destroy the tissues between the poles. The use of interruptions of the current was then suggested.

In fibroids the interrupted strong current would be followed by general and dangerous sloughing of the tumor. In cancer however, where the vascular supply is abundant and the cancer cells are scattered in nests throughout healthy tissue, any decomposed or dead cells would be quickly and safely disposed of.

He therefore determined to try the effect of a strong interrupted current, anæsthetizing the patient, and passing the current through the tumor and all the tissues for some inches round it, by means of fine insulated needles so as not to injure the skin. A current of 10 milliampéres was first used, and it was gradually increased and flashed through the growth from 50 to 100 times.

The results were cessation of growth, gradual disappearance of pain, some shrinking and hardening of the tumor and enlarged glands, with improvement of the general health. The article of Dr. Parsons, giving as it does the statistics of the four cases, is very well worth reading.

Miscellany.

Œdema as a Diagnostic Sign in Carcinoma of the Stomach.—M. C. Baert, of Brussels, writing in *La Clinique* on cancer of the stomach, calls attention to the frequency with which œdema of the ankles is met with in this affection after it has lasted a few months—a diagnostic aid which is by no means new, but is, he thinks, in danger of being too much overlooked at the present day. He gives a number of cases recently occurring in the various hospitals in Brussels in which œdema was present. In one of these cases the œdema came on as early as three months after the first symptoms of the affection made their appearance; in two other cases it was noticed after four months; but in most of the other instances it was delayed till the lapse of from six months to a year after the onset. In one case, where there was no evident cause to which to attribute the loss of appetite and the wasting complained of by the patient, Professor Carpenter, noticing some œdema of the ankle, diagnosed carcinoma of the stomach, and found his diagnosis confirmed by the appearance a month afterwards of all the usual signs of the affection. Several of the cases presented a marked increase in the nitrogen excreted in the urine. With regard to the deficiency or absence of hydro-chloric acid in the stomach in cancer of that organ, M.

Baert admits that it is usual, but agrees with Wolff and Ewald in saying that this sign is by no means peculiar to cancer, as it is found in other gastric affections.—*Lancet.*

Medical Items.

The German Ophthalmological Society will meet at Heidelberg from September 13 to 15, 1889.

An International Congress of Otology and Laryngology will be held in Paris from September 16 to 21, 1889.

A movement is on foot, to secure a conference among prominent medical men of this city, for the purpose of devising some plan by which all the Faculties and societies may seek together to advance the interests of medical education in the State of Maryland.

It is reported that Dr. Hobart Hare has been appointed editor-in-chief of the *Medical News* to succeed Dr. I. Minis Hays, who will in future have charge only of the monthly medical publication from that office, Dr. Hare is a graduate of the Pennsylvania University, and is at present an assistant to Prof. H. C. Wood. He has for some time been one of the editors of the University medical publications.

Roger and Gaume have made a report to the Biological Society of Paris upon experiments concerning the toxicity of the urine of pneumonia patients. During the febrile period they state that the urine is two or three times less poisonous than otherwise; with the crisis it reaches its least degree of toxicity, while after the crisis for two or three days it is considerably increased. They think the cause of the toxicity is an unknown poison, perhaps a substance produced by bacteria.

The Emanuel Sisterhood of Personal Service, of New York, has been incorporated. Its object is to direct and aid its members who desire to devote a portion of their time to visiting the sick and caring for young children.

It is to be hoped that such associations may be formed in every section of the country. In our large cities especially, voluntary associations of this sort would be productive of great good both to their members and to the sick of all classes of Society.

The coroner's jury investigating the cause of the death of the mind-reader Bishop returned the following verdict:

1. That he died of coma.

2. Tha,t while Drs. Irwin, Ferguson and Hance acted in good faith in performing the autopsy they think that Dr. Irwin, through over-zealousness, acted in some haste respecting the direction of the performance of the autopsy. The doctors were discharged. Dr. Ferguson who made the autopsy testified that Bishop was certainly dead. His heart was abnormal in size, there was evident chronic disease of the kidneys and a hæmorrhage into the brain.

It is rumored that Chicago is soon to have a Pasteur Institute for the study and treatment of Rabies. At the solicitation of Dr. Washburne, Pasteur has consented to receive an American physician, and to give him a special course of experimental instruction, on condition that the knowledge derived from it shall be used only for the public benefit. Dr. Washburne has been selected by the Chicago Medical Society as the proper person. Owing to the exertions of Drs. DeWolf and Fulton, among others, a subscription fund of $5,000 will be started to defray the expenses of his studies and to start the new hospital.

The University of Pennsylvania gives another Professor to the Johns Hopkins. The Johns Hopkins Univeristy has drawn upon the University of Pennsylvania once more to equip its medical staff. Professor Howard Kelly, who for one year has shared the chair of Obstetrics at the University of Pennsylvania with Professor Barton Hirst, has received notice from the Johns Hopkins Trustees of his election to the chair of Gynecology in that institution, and has resigned his present chair. Of the four Professors already elected to chairs in the medical department of the Johns Hopkins, two have come from the faculty of the University of Pennsylvania, the first being Professor Osler.

Prof. Billroth's Sixtieth Birthday.—On May 6th, at 9 o'clock, Prof. Billroth commenced his clinical lectures for the summer semester, and the opportunity was taken by his pupils and colleagues to give him a splendid ovation. The entrances to the clinic were decorated with flowers, and his working cabinet was almost transformed into a garden. Two hours before the beginning of the lecture the theatre was filled to the roof with students. Those professors of the Vienna Medical Faculty who were not prevented by their duties were present, with many other distinguished persons from other cities, among whom were several of his former pupils.

At nine o'clock, Prof. Billroth, accompanied by his two present assistants, Dr. Salzer and Dr. von Eiselsberg, appeared in the theatre, and was received with a tempest of applause. An address was presented in the name of the students, to which Prof. Billroth replied in a speech in which he gave a sketch of the development of the medical sciences since the reign of the Empress Maria Theresa. He also alluded to the part which surgery had to play in the future, stating that its first task would be to get rid of tuberculosis. An allegorical picture and a medal were presented to him.

Original Articles

REPORT OF THE REMOVAL OF A SUPERNUMERARY TONSIL.*

(*Specimen and Drawings.*)

BY

ETHELBERT CARROLL MORGAN, A. B., M. D.,
PRESIDENT OF THE ASSOCIATION.

Dr. D. Bryson Delavan (†) has said: "Of all the internal organs of the body, none are more easy of observation than the tonsils. And yet, with an almost complete knowledge of their appearance, relations and anatomical construction, there are few parts whose physiology and pathology are so unsatisfactorily explained." Hence, no apology is needed for recording the following rare case:

History.—Mr. C. N. B. aged 26, a vigorous and otherwise healthy man, by profession a stenographer, consulted me September 7th, 1886, for what he feared was a malignant tumor of the pharynx.

He stated that a growth, which he could see as well as feel with the finger near the palate, was causing him pain and discomfort. This growth he first noticed four years previous. Occasionally, it had given him considerable pain, especially after smoking or when he became bilious.

During the last two months, however, the tumor had greatly increased in size. and the pains had become of a shooting character, extending to the ears, larynx and top of the head, forcing him to seek medical aid.

He also informed me that his mother died of cancer of the breast, and that, at the age of sixteen, he had contracted syphilis, which, beyond mild secondary cutaneous manifestations, had never troubled him in any manner since.

My examination revealed a pendant tumor between the right palatine folds near the uvula and protruding beyond their borders perhaps one-half inch. The tumor was the size of a small almond, having its broad end to the velum and its point downwards, but the outline was somewhat irregular. Its color, as well as that of the velum and pillars, was a dusky red. Slight engorgement of the cervical glands appeared to exist.

The patient was agitated by the persistency of the pain, was losing weight and strength, and was anxious to have relief, if an early operation gave any promise; for he was convinced in his own mind of the malignancy of the growth.

I watched the case, administering Donovan's solution internally, and used topical measures, but, there being no amelioration, I decided to remove the tumor.

Accordingly, on September 14th, 1886, in the presence of Drs. James E. Morgan, J. C. McConnell and others, the patient properly arranged, I seized the growth here exhibited, with a vulsellum, readily lifting it from its bed, and was surprised to find the breadth and depth of its attachment.

With a bistoury, I cut deeply into the tissues adjacent the tumor, which occasioned slight pain and moderate hemorrhage, and lastly, with the cautery blade at a bright red, I burned the wound made in operating. A sedative spray rest and bland food were ordered, and in ten days the wound had cicatrized so that I simply watched the patient thereafter, discharging him, cured, on November 16th, 1886.

On March 26th, 1887, in writing me a history of his case, he says, "I have gained in strength, flesh and good health since the operation, but occasionally, after smoking, have a pricking feeling in the throat."

I have examined Mr. B. recently (May 20th, 1889) and find him, nearly three years after the operation, with no recurrence, and with no throat trouble except what he traces to the inordinate use of tobacco at times. His normal tonsils have always been illy defined, and only became plainly visible when acutely inflamed.

The tumor was submitted to micro-

*Abstract of paper read before the American Laryngological Association, at its Eventh Annual Meeting, at Washington, D. C., May, 1889.

†D. Bryson Delavan, Archives of Laryngology, N. Y 1880, I., 337.

scopic analysis by Dr. Gray, of the Army Medical Museum, who stated that its structure was identical with that of a faucial tonsil, which had undegone hypertrophic changes. Dr. Gray made these excellent photo-micrographs and furnished the following written statement:

War Department,

Surgeon General's Office,

U.S. Army Medical Museum and Library,

10th Street.

Washington, D. C., Sept. 16, 1886.

Dr, E. Carroll Morgan,

My Dear Doctor:

The specimen sent for microscopic examination proves to be, as you suspected, a supernumerary tonsil. It somewhat resembles an ordinary hypertrophied tonsil, but differs from it, and the normal gland, by having the sub-mucous connective tissue immensely thickened and degenerated into a dense fibrous connective tissue. The gland also differs from the normal by being divided up into small lobes, the septa being formed by bands of connective tissue coming from the sub-mucous connective tissue, and by folds of the mucous membrane. There are no mucous secreting glands inside the folds of the mucous membrane as in the normal gland. The specimen resembles the normal in possessing numerous lymph follicles, and by being formed largely of a diffuse adenoid tissue.

Yours very truly,

W. M. Gray, M. D.,

Microscopist to Army Med. Museum.

The location and microscopical characters of this tumor as well as the history of the patient, prior and subsequent to the operation, prove that I had an hypertrophied accessory or supernumerary tonsil to deal with, an interesting and exceedingly rare abnormality.

Some of the so-called ductless glands show a tendency to divide or form supplemental masses (Allen). They include the spleen, thyroid body, thymus body, suprarenal bodies, intercarotic bodies and coccygeal body.

Acccessory, supplemental or supernumerary spleens, called also spleniculi or lieniculi, are frequently found in the gastro-splenic omentum, near the lower part of the spleen. They are commonly spheroidal in shape and vary in size from a pea to a walnut. Multiplicity of the other organs named is much less frequent than the spleen.

The pituitary body in part, the thyroid, thymus, intercarotic and coccygeal bodies, are developed from the embryonic hypoblast in association with the primitive alimentary tract (Allen). They present some features in common with the lymphatic system, but still form a distinct group.

The spleen, tonsil, solitary and agminated bodies of the small intestine, and other adenoid structures of the alimentary canal, are closely related to the lymphatic system. Lymphatic glands are variable in number, in size and mode of aggregation. It may be expected, therefore, that the above-mentioned related organs will likewise vary.

Follicular lymphoid glands, commonly more or less conspicuous, are found on the posterior third of the tongue, where their orifices are distinctly visible, and they give to the surface an uneven appearance. The tonsils are compound glands of the same character. Follicular lymphoid glands are numerous in the pharynx and give the surface of the pharynx a more or less mamillated aspect. A patch of these bodies extends between the mouths of the two Eustachian tubes across the back of the pharynx, and is called the "pharyngeal tonsil." Hunter is said to have first called attention to them. Lacauchie, in 1843, had described them, and Luschka, in 1862, gave them their name.

Kölliker, in 1854, confirmed the existence of the pharyngeal tonsil; he also hinted that what appeared to be similar follicles were to be found in other parts of the pharynx. In the 1867 edition of his "Gewebelehre," he definitely stated that these are lymphoid follicles; in the

following language: "Follicular glands, simple as well as compound, analogous to the tonsils, are met with in the vault of the pharynx, where the mucous membrane is closely attached to the base of the skull. Here a glandular mass stretching from one Eustachian opening to the other, and from one to nine mm. thick, may constantly be met with; it is upon the whole, smaller, but otherwise its structure resembles, in all essential respects, that of the tonsils (132). Besides this mass which I will call the follicular glands of the pharynx, and which also Lacauchie appears to have seen (Traité d'hydrotomie. 1853, Tab. 2, Fig. 10) whose largest sacculations are situated in the middle of the roof of the pharynx, and in the recesses behind the Eustachian apertures, and which, in aged persons, frequently present enlarged cavities, filled with puriform masses, whilst in children and in the newborn, they are mostly hyperæmic like the tonsils, there occur around the apertures of the tubes, and upon them, towards the choanae, on the posterior surface of the velum palati, and on the lateral wall of the pharynx, as far as the level of the epiglottis and the laryngeal orifice, more or less numerous smaller or larger follicles which have the same structure as the simple follicles of the root of the tongue."

There would seem to be nothing in the way of these several lymphoid structures undergoing hypertrophy as such structures do in other situations. Probably they often do so. In the region of the pharynx, such an hypertrophy would have the appearance of the faucial tonsils, and suggest the name of supernumerary. Such additional tonsils, however, excepting the inter-Eustachian, are scarcely at all mentioned by writers. A fair amount of research has discovered only the following by Jurasz, in the *Monatsschrift für Ohrenheilkunde*, etc., Berlin, 1885, p. 361 et seq. His paper is entitled "Casuistische Beiträge zur Lehre von den Anomalien der Gaumentonsillen."

First Case.—A man, aged 18, spoke in a high pitched voice, through his nose, and had done so from early childhood. He made no other complaint. The nasal cavities were, however, free. The space between the right palatine arches was quite large, but the tonsil was only rudimentary; the left was better developed. While examining the parts, the doctor was surprised at the sudden appearance from the throat of a large tumor which rapidly filled the entire faucial space. The tumor was whitish gray, soft, lobulated, and the size of a hen's egg. Pedicle small and short. It was removed by Czerny, and was found to spring from the lower anterior portion of the right posterior pillar. Microscopical examination showed the structure of a hypertrophied tonsil, with some hyaline degeneration of the reticular tissue.

Second Case.—His second case, which he calls "Tonsilla accessoria," was in a woman, age 30. She had an irritating cough; but the thoracic viscera were found to be normal, except a marked smallness of the tonsils. On rhinoscopic examination of the naso-phharynx he found a red, uneven tumor, the size of a hazel-nut, with broad base attached below the right tubal prominence. The mouths of the tubes were of the normal yellow color, the pharyngeal tonsil not enlarged, the choanae were free. Externally the tumor looked like a papilloma; microscopic examination showed it to be of the same structure as the faucial tonsil.

CONCLUSIONS.

1. The lymphoid follicles of the soft palate and pharynx are liable to be aggregated, resembling in arrangement the faucial tonsils.

2. The condition is exceedingly rare, since, excepting the so-called "pharyngeal tonsil," I have found but one case reported.

3. These lymphoid follicles are also liable to hypertrophy.

4. Such hypertrophies probably occur oftener than is generally supposed.

5. The indications for operative interference in this condition are identical with those for the faucial tonsil.

ADDRESS OF THE PRESIDENT.

ETHELBERT CARROLL MORGAN, A. B., M. D.,
WASHINGTON, D. C.

Fellows of the American Laryngological Association:

The eleventh annual session of this organization is inaugurated and I experience profound pleasure as your president and as a citizen of Washington in bidding you cordial welcome to the National Capital, to our hearts and to our homes. Few among you can appreciate my joy to-day at being spared to greet this association in my native city, and, more than all, to have the honor on this occassion of acting as your presiding officer.

You find our historic city decked in the robes of spring, on all sides the industry, learning and generous wealth of a great nation are reflected. You are surrounded by the beauties of nature and art, and are in the home of the scientific libraries, laboratories and museums fostered and encouraged by a liberal government. Every American and every physician should alike share in the desire for the substantial improvement and adornment of the Mecca of this great and populous country.

Wisely you decided to follow in the wake of the numerous scientific bodies, among them the National Academy of Sciences, that make pilgrimages to our city and exert a healthy influence towards popularizing their special fields of scientific investigations.

The history of laryngology, her struggles and her conquests, in the capital of your country is brief and embraces a period of scarce fifteen years; hence your meetings here will create a happy influence.

When you visited our city last September, you constituted an important and honored branch of a Congress which did much to spread the fame of American medicine and advance the cause of scientific research. Your work in that Congress is attested by the volume of our Transactions now in press, and forms an enduring monument, creditable alike to the American Laryngological Association and to the Congress of American Physicians and Surgeons.

The noble work in which this Association has been absorbed during its eleven years of existence, has resulted in placing laryngology upon a substantial basis, and of demonstrating its truths and benefits alike to the profession and to suffering humanity.

The outlook for laryngology was never brighter, new conquests lie within our grasp, the field is unlimited, no pessimist can flourish in our ranks; the honor of fellowship in this Association was never more coveted; our influence upon medical thought in the Old World was never greater, and the wisdom of the coterie of laryngologists who organized the American Laryngological Association, at Buffalo, in June 1878, is apparent.

The harmonious and business spirit, which has always characterized our meetings is traceable to the unselfish and untiring zeal of our Secretary, Dr. Delavan, whose sole thought is the welfare of the Association and the best interests of its members as individuals.

Reviewing the history of the Association, I find that a kind Providence has left our band of co-workers intact and there are happily no deaths to chronicle.

A valuable and superbly illustrated volume containing the transactions of our tenth meeting will be printed in eight months after the reading of the papers, but has entailed much labor upon our faithful and ever willing Secretary. The expense attending the printing of these transactions was increased owing to the fact that the New York Medical Journal could not accept the contract on account of the lateness of our meeting. This volume has a table of contents of all papers read to the Association since its organization, and this alone would justify the additional expense. We expect to derive a revenue from the sale of these volumes, and to be able to consummate an advantageous contract for their future publication.

An important amendment to our Constitution, increasing the limit of active fellowship, comes up at this meeting. I

hope the discussion thereon will be general and marked by the candor and spirit of friendship which characterizes all our debates and leads to results favoring the best interests of the Association.

The limit of our membership is fifty and will be reached when the two members-elect of this session are installed. There is a probability of two vacancies in the near future, and for them, numerous gentlemen, engaged in our common specialty, are available.

This matter has been referred to in preceding presidential addresses, has been fully discussed at several of our sessions, but action invariably postponed. I think the question should be definitely decided at this meeting.

Our library, under the assidnous care of Dr. French, has assumed very creditable dimensions, containing nearly one thousand separate titles, but I regret to learn of a lack of interest among our members, in making contributions to its shelves. The Librarian thinks our collection would be more accessible and popular if in charge of the Surgeon-General's office, and he recommends its deposit in that Library.

Dr. Billings informs me that he will, as far as possible, keep the collection intact and permit the free use of the books by our members if they are placed in his custody.

I venture some opinions regarding the entertainments in connection with our annual gathering, at the risk of being rnled out of order. The time has arrived when rules relative to their number, their character, and the time of their occurrence should be adopted.

The expenses attending the annnal dinner, one of the pleasantest features of our meetings, should be charged to all members attending the sessions, whether they participate in the dinner or not. Thus, much annoyance would be avoided, and in the event of the small surplus, it could be utilized for a few invited guests at each dinner, or turned into our treasnry. We should never dispense with this dinner, as was the case last September, in deference to the interests of the Congress in which we were participating.

A committee having full power to provide proper entertainment (private and official) should be appointed for each meeting and should be known as the "Committee of Entertainment."

And now, Gentlemen, I cannot refrain from reiterating the assurance of my heartfelt appreciation of the goodwill and friendship, which must have influenced you in selecting me as the President of this distinguished body.

Amid the many attractions of this scientific and educational center, we should gain renewed impetus for our important and humanitarian work. I, therefore, wish your a pleasant sojourn in Washington, a profitable scientific session, and an early repetition of this meeting.

A CONTRIBUTION TO AN ADVANCED QUARANTINE.*

BY W. C. VAN BIBBER, M. D.,
OF BALTIMORE, MD.

[Being the Chairman's report of the Section on Sanitary Science.]

Your committee have determined to make their report upon Quarantine. In this connection the condition of our Baltimore Quarantine will be mentioned. More properly it should be called "The Maryland Health and Quarantine Establishment;" and why it should be so called, we will endeavor to explain. We will endeavor also to show what might be expected from a fully equipped Quarantine Establishment at this port; and furthermore what might yet be done to bring it to a standard commensurate with the present advanced ideas of quarantine.

The improvements which have been made at the Baltimore Quarantine within the last few years will be alluded to; and in venturing to criticise any portion of our present buildings or arrangements, we shall not be unmindful of the matter of expense, and will suggest from what sources the cost of further improvements should come.

* Read before the Medical and Chirurgical Faculty at its 91st Annual Meeting, April 25, 1889.

The diseases which are quarantined by law at the port of Baltimore are cholera, small-pox, yellow fever and typhus fever. The health officer hoists the yellow flag on the first of May, and boards all vessels coming from ports beyond Cape Henry, from this date until the first October. From this latter date, until the returning first of May, there are other laws which govern this service.

The question now is whether the buildings and arrangements at present existing at this port are sufficient for the purposes intended. Before answering this question an abstract will be given from a paper prepared by one of your committee and read on the 7th of March last before the Quarantine Conference held in Montgomery, Alabama.

The object of this conference was to discuss the subject of quarantine which during the latter part of last Summer was made interesting to the people of the Southern portion of our country from the fact, that yellow fever existed in Florida, Alabama and other points in September 1888; and in consequence of this an extensive and ruinous panic spread throughout the Southern and Southwestern States, paralysing business and producing all the attendant hardships in social life. An account of this panic may be seen in the reports of the Board of Health of the several States, for 1888.

Dr. W. C. Van Bibber of Baltimore read the following paper: upon

THE QUARANTINE OF THE FUTURE.

"Yesterday the quarantine of to-day was discussed: I desire now to enlist your interest in the design of an establishment for the promotion of health and the suppression of disease. I cannot doubt that similar ideas may have occurred to many of you, but as I have given the matter much and careful consideration, and have thoughtfully weighed all the points that presented themselves to my mind, I have the temerity to suppose that the design I shall suggest will probably be more complete in detail than any that has been proposed. At least, I am safe in saying that no such system has yet been put into operation in this country even in those localities where something of the sort is most urgently needed.

I will call my design for the present, a system of quarantine, as its first object is to prevent the introduction and spread of communicable disease. But I energetically protest against my views suffering prejudice by reason of the repellant associations which are too often—and often too justly connected with that name. As the hospital to-day is something very different from the "lazarettos" or lepers' house of the middle ages, so the quarantine of the future must be something different from the inefficient. and at best unattractive quarantine of to-day, I will call it "The State Bureau of Health and Quarantine." I took forward to a system which will be not only scientific and effectual, but attractive; so that those for whom it is provided, whether for personal treatment or for public safety; will rather be lured to it than repelled; and the sick will gladly avail themselves of its beneficent arrangements. I look forward to an establishment worthy of the state which founds it, and a pride to her citizens.

If such a result be desirable, which I think will hardly be questioned—and if the design which I shall broach promises to realize such a result, of which you must be judges—may I not appeal to my professional brethren to come forward as pioneers in this movement; to give the light of their experience and wisdom in perfecting what may be left imperfect, and the weight of their influence in disseminating enlightened ideas and combatting old prejudices? It lies with them to explain to the public what a well equipped and scientific quarantine system ought to be and may be; and how thoroughly physicians, if their exertions are supported by wise laws and seconded by public opinion, can now cope with those communicable diseases which are so often, and have been so recently, causes of wide-spread suffering and of the wildest terror.

There is an old saying that "affictions are often blessings in disguise." Though

in no case, perhaps, is the disguise thicker and harder to penetrate, than in that of a great epidemic, yet even here it lies with us to make the proverb good, if the afflictive experience leads us to devise means against its recurrence. Certainly it is a discredit to our civilization, to our humanity, and almost a reproach to the profession to which we have devoted our lives, that such diseases should paralyze whole communities and drive them into paroxysms of frantic terror, as happened last Summer in the yellow fever panics of the Southwest.

Recent advances which have been made in the study of the quarantined diseases, will permit some things to be done now with safety which was not formerly allowed. Formerly, if a community proposed to place a quarantine establishment in an accessible, convenient, and desirable situation, such opposition would be made, and such influence brought to bear, that the site would have to be abandoned, and the buildings, necessarily, located in some unattractive, inconvenient, and perhaps unhealthy place—turned out into the wilderness like the scape-goat, and pursued even there by the fears and aversion of the whole community. All this is, or should be, a bygone state of things. In Baltimore—when more than sixteen years ago the late Johns Hopkins bought thirteen acres of land within the city, and proposed to build thereon a public hospital, there arose strong opposition, on the ground of prejudice, and the dread of spreading disease; but now that the noble foundation which bears his name is erected, none of this feeling exists. Our people are logical, and it did not take long for objectors to see that the function of a hospital is to extinguish disease, not to spread it; and that communicable diseases are far less dangerous to the community when confined under the immediate control and supervision of a corps of physicians and nurses, who may be able to sterilize the germs emanating from infected patients, than if these latter were allowed to scatter themselves throughout the community and become *foci* of infection at many points.

The fact is, it is only necessary for the people to understand how different the well appointed scientific hospital of the present day is from the traditional hospital of the past, and their views and prejudices would undergo a radical change.

Let me state what I think would be the public feeling here, where we are now, if such a question should arise. Should the State of Alabama propose to erect a quarantine establishment in the city of Montgomery, and set about securing land for the purpose, opposition might at first be raised by adjacent property-holders; but it would subside as soon as it was known what the hospital was going to be. A properly built and well appointed hospital is an embellishment to the city that contains it. Its buildings are imposing; its grounds are spacious, ornamental and well kept, and have the beauty and advantages of a public park. The establishment becomes one of the attractions of the city, and neighboring property is enhanced in value. Those of you who have seen the Johns Hopkins Hospital (to which we take guests from abroad as one of the chief attractions of the city) can bear out what I say.

Now if proper ideas can be disseminated on this matter; if the people can be convinced that a quarantine can be made safe, efficacious, and at the same time attractive; that it will effectually prevent not only the spreading of disease, but the spreading of panic, such a quarantine will certainly enlist in its favor the whole body of public sentiment. But to obtain this desirable end, the community must be enlightened as to the results which have followed the study of quarantined diseases, and the use of sterilizing agents in combatting them.

The diseases now quarantined in this country have been mentioned. What physician is there who has any dread of small-pox in his own person, or for his immediate family or his obedient patients? The physicians and people of England have nearly convinced the world that the spread of cholera may be checked by sanitary measures; and if that disease spreads through a community, it is the fault of the people. Typhus

fever has come to us heretofore principally from Ireland. Less careful and less advanced people than we are, living near our own coast, bring the yellow fever to us. It comes from Hayti, Cuba and Mexico. We know many of its ways and peculiarities. It has never yet gained a permanent abode in our country. It is the clear and urgent duty of us Americans to prevent the introduction or the domestication of these pest-germs on our soil if we can. The several states and the federal government are alike interested in this matter. The yellow fever germ has been most frequently brought into Louisiana, Texas, Alabama, Georgia and the Carolinas. But it has also been brought into Virginia, Maryland, Pennsylvania and New York. Consequently, all the States in the union have a common interest in excluding this germ, and this disease. This convention has assembled here to consider this subject. How do you propose to advise these governments to make this attempt? It is not without preparation that I appear before you, Gentlemen, and give my humble advice in this important and much debated matter.

With the knowledge, and all the facilities now at hand, an establishment may be erected, which will in time become the centre of study, of information, and of authority upon these points; and as soon as built and equipped, will be a school, an asylum for patients, a place for isolation and for controlling communicable diseases by subduing the germs.

It consists of four buildings, kept apart; a separate hospital for each of the quarantined diseases, and a building for the administration. These four buildings are connected with all parts of the state by railroads and telegraphs, and with each other by railways, telegraphs, telephones, etc. It is intended that the spacious grounds shall be laid out as a park; portions being reserved for the exercise and recreation of convalescents, and other portions for those who come from an infected locality, but exhibit no symptoms of the disease; and who, of course, are most likely to be impatient under detention. Quarters should be provided for them in the main building, and every practicable arrangement made to render their sojourn as pleasant as possible. The whole establishment should be located in as attractive and healthy a site as possible, and given as much the air of a summer health resort, as may be consistent with the purposes for which it is destined.

The main building would be the place at which all information should be centered, and from which all authority should emanate. Here would be the headquarters of the medical staff; and here the knowledge acquired at the bedside would bear its fruits. Here should be kept models and designs for building; here should be exhibited the highest standard of cleanliness; here should be formulated sanitary rules. Each subsidiary department should be complete in itself. The small-pox department should undertake to keep on hand thoroughly reliable vaccine virus, and distribute it throughout the State, as is done now by our vaccine physician.

The working of such an establishment would be something like this: On the appearance of quarantinable disease, or the landing of passengers from an infected locality, the staff would be immediately communicated with. At once officers would be despatched to remove the infected or suspicious persons, to investigate the circumstances thoroughly and take all necessary measures. The presence of the officers, and the knowledge that the matter was being promptly and efficiently dealt with, would quiet alarm.

If I may use an illustration familiar to most of us it would resemble the introduction of the modern fire department into a great city. I can remember when Boston, New York, Philadelphia, and Baltimore were protected only by volunteer fire companies with hand apparatus. Many of these firemen were brave and devoted men, but there was no proper organization, no discipline, no efficient appliances. They worked at random and at a disadvantage. Any one who chose might offer his advice or his services; and this

well-meant zeal was often a hindrance rather than a help. The consequence was that a large fire spread alarm over the city. Now that we have a thoroughly organized department, with experienced chiefs, improved apparatus, and thorough drill, the fire alarm scarcely causes a ripple of excitement. Every one knows that whatever can be done will be done, and that the whole business is in the hands most competent to manage it.

The practical advantages of such a system as I have described, may be summed up as follows:

1. It would prevent panics in our inland cities and towns; for nothing could be more reassuring to a community than the knowledge that there was such a body of men at all times ready to meet the first appearance of disease, and thoroughly provided with the means to cope with it.

2. It would give the greatest facility for preventing the outbreak of an epidemic, and subduing the germ if it made its appearance.

3. It would give the best possible facility for the recovery of patients attacked, by combining the most effective medical treatment with the most perfect possible sanitation.

4. It would be headquarters for all movements in the direction of hygiene and sanitation, whether these should take the form of warning, or instruction to the people, suggestions to medical practitioners, or recommendations for legislation.

5. Each of the establishments would be in communication with other similar establishments in the country or the world, that whatever advance was made, or knowledge acquired at one, would at once inure to the benefit of all. Thus each would possess at once the highest possible authority; and would be a school at which medical practitioners could learn the latest results of science in every branch that came within its scope.

Such an establishment should be built upon a large domain; and this domain might at the same time serve for other useful public purposes. Here might be medical or other scientific colleges and museums; a vaccine virus farm, an agricultural college. The domain, if near a city, might be a suburban park.

So far as I can judge there is more knowledge now existing among the medical officers of the United States concerning this branch of public necessity, than can be found elsewhere. Any one who doubts this need only visit the war, navy, and hospital departments in Washington, where he can judge for himself. I am not thoroughly acquainted with what has been done by other governments in the way of collecting information bearing on that branch of the public safety which relates to communicable diseases, but from my conversations with our own officers, I have reason to think that, in unapplied knowledge, at least we are in the advance. It is, therefore, eminently fitting that the federal government should utilize these collected treasures of knowledge, and show the world the needed quarantine of the future.

This might be done at any one or all of the seaports on the Atlantic Ocean, the size and extent of the health and quarantine establishment being proportioned to the area of inland country protected; such area of inland country, paying its just and due proportion of the expense of the establishment. I believe that this matter could be so presented to Congress as to enlist the favorable consideration of that body; but in this matter I can only offer suggestions, leaving the choice of steps to the judgment of others.

I am aware of an objection that may be raised to my plan. It may be said that if it succeeds—if communicable diseases be stamped out or reduced to a minimum, our staff of trained physicians and assistants will have nothing to do. We cannot scatter them to the four winds, and put the buildings in charge of care-takers, and hope to find every man at his post again if disease should break out. I answer that I would make the institution the permanent centre of hygiene for the whole state. Now hygiene and sanitation never rest; they are always furnishing new occasions for de-

liberation, investigation and action. Sudden outbreaks of typhoid, of diphtheria, of the more malignant types of zymotic disease can often be traced to local or preventable causes. In such cases as these—and they are constantly occurring—our staff would be called upon. Many other cases will occur to you, which I need not suggest. I think that in denominating the institution a permanent centre of hygiene, I meet the objection fully.

These are some of the ideas and conclusions drawn from the advanced knowledge of the day. They will certainly prevail; the sooner, the better, and the place where they are first moulded into practical form, and are crystallized by architectural displays will surely have the credit of being in the front rank of advanced science. If this should happen here, it will not be the first time when, nor the first great subject upon which, Baltimore has had an enviable distinction.

The active Quarantine Service of this port was removed from the position which it occupied for many years, to the present more eligable site, about four years ago. It is now seven miles from the city: consists of a Hospital containing fifty beds; a house for the Port Physician; another for his employees; and a boat house,—all built upon a well selected point of land containing eighteen acres which is improved by a terraced lawn and a garden; having at its edge a convenient wharf upon deep water. The equipment consists of a steam launch, two row boats for boarding, and a telephone communicating with the Health Office in the City Hall. This situation can practically be reached only by boat, and there is still wanting a convenient and safe transportation for variolous, or other patients, taken from the city. The old location is still retained by the health authorities; this can be reached by land, but not as an easy transit, and upon it a number of tents are stored, ready for use in case of an epidemic. The laws governing Quarantine are properly enforced by active and praise-worthy officers, who have the confidence of each other, and merit the same from the community.

There have never been five patients together, at any one time, in the new Hospital since it has been built, and this is one of the reasons given by the health departments of the city and port, to show that the arrangements, as they have been described, are at present sufficient for the purposes designated and provided for by existing laws.

With these facts, and with this authority before us, it might be considered vissionary and a supererogation to go further and propose an advancement in our Quarantine. But we wish it distinctly understood that should the authorities of the city; the State of Maryland; the area protected, composed of many individual States; together with the general government, for the greater protection of their federal city and the West; should all these combine, at your suggestion, or the suggestions of others, and importune the American citizens, as they should do, to enlarge these arrangements and build, upon the Patapsco River, "a Health and Quarantine Establishment upon a more advanced scale, equal to our description of the Quarantine of the future," they, would meet with the most unqualified endorsement and hearty approbation of your Committee.

The present needs of the establishment at Baltimore, however, are disinfecting rooms with their recently improved apparatus, and a crematory for the consumption of diseased materials. For these necessary equipments of a Quarantine establishment the New York authorities have appropriated over 20,000 dollars this year, and for other repairs and improvements of their Quarantine they have appropriated over 122,000 dollars.

The officers of our quarantine feel the absence of these appliances, because they know that with them they could add much to the efficiency of their work, and that they could also reduce the expense which resusults from burning all infected articles, as now practised. Owing to the energy and talent which has recently been, and is at present, engaged, in superintending these improvements, the situation, the buildings and the conveniencies at present existing at

the mouth of Curtis' Bay and the Patapsco river, are vastly superior to those which were in use a few years ago in the old location. Let us hold on to and enlarge what we already have, for the situation at present occupied as a water front is a necessary part of any further improvements which may hereafter be contemplated, or made, connected with a system of maritime and land quarantine combined, which will have for its object the maintenance and progressive improvement of the Public Health.

26 W. Franklin Street.

Correspondence.

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE,

WASHINGTON, D. C., May 1, 1889.

To the Medical Profession:

The various medical associations and the medical profession will be glad to learn that Dr. John S. Billings, Surgeon, U. S. Army, has consented to take charge of the Report on the Mortality and Vital Statistics of the United States as returned by the Eleventh Census.

As the United States has no system of registration of vital statistics, such as is relied upon by other civilized nations for the purpose of ascertaining the actual movement of population, our census affords the only opportunity of obtaining near an approximate estimate of the birth and death rates of much of the larger part of the country, which is entirely unprovided with any satisfactory system of State and municipal registration.

In view of this, the Census Office, during the month of May this year, will issue to the medical profession throughout the country "Physician's Registers" for the purpose of obtaining more accurate returns of deaths than it is possible for the enumerators to make. It is earnestly hoped that physicians in every part of the country will co-operate with the Census Office in this important work. The record should be kept from June 1, 1889, to May 31, 1890. Nearly 26.000 of these registration books were filled up and returned to the office in 1880, and nearly all of them used for statistical purposes. It is hoped that double this number will be obtained for the Eleventh Census.

Physicians not receiving Registers can obtain them by sending their names and addresses to the Census Office, and, with the Register, an official envelope which requires no stamp will be provided for their return to Washington.

If all medical and surgical practitioners throughout the country will lend their aid, the mortality and vital statistics of the Eleventh Census will be more comprehensive and complete than they have ever been. Every physician should take a personal pride in having this report as full and accurate as it is possible to make it.

It is hereby promised that all information obtained through this source shall be held strictly confidential.

ROBERT P. PORTER,

Superintendent of Census.

VARICELLA IN ADULTS.

WASHINGTON, D. C., March 25, 1889.

Editor Maryland Medical Journal:

DEAR SIR;—In reply to Dr. Clement's letter of May 4th, inst., as to varicella in adults, I would like to add two well marked cases to his list. In December 1887, I was called to see a young lady about 23 years of age, who had every symptom, well marked, of chicken pox. She had it severely and was in bed for several days, with the characteristic vesicular eruption and quite an elevation of temperature. Her sister, who nursed her, (about 25 years of age) on the third or fourth day, called my attention to an eruption, vesicular in character about her shoulders and neck; there was a slight rise of temperature with general malaise, this was also a well marked case. Both of these patients have one or more cica-

trices proving without a doubt, the correctness of my diagnosis. I myself, when 16 years old, had one of the worst attacks of varicella that my physician had ever seen, leaving three well marked pits on my forehead and face. I do not think Dr. Clements will find this disease as rare among adults as he imagines.

Yours Respectfully,

D. Olin Leech, M. D.,

720 H. Street, N. E.

Society Reports.

MEDICAL AND SURGICAL SOCIETY OF BALTIMORE.

STATED MEETING HELD MARCH 28, 1889.

The 691st regular meeting of the Society was called to order by Dr. F. C. Bressler, First vice-president.

Dr. J. H. Scarff read a paper relating

A CASE OF VAGINAL HYSTERECTOMY FOR SARCOMA OF THE UTERUS.

Dr. William H. Norris asked; what is the liability of its return?

Dr. J. H. Scarff said: Dr. Hoffman, after making a microscopic examination, made a report of spindle cell sarcoma and that diagnosis was accepted. As to its return, time only can determine that. Her life will be prolonged beyond a doubt. The patient made the most rapid recovery he ever observed after so serious an operation. From the time of the removal of the caruncle to the operation of hysterectomy, there was a period of two months, and during this time she was gradually losing ground, which makes the rapidity of her recovery, after the hysterectomy all the more noticeable.

Dr. William H. Norris said: Dr. Keith, of Edinburgh says "Hysterectomy has done more harm than good and its mortality is out of all proportion to the benefits received by the few." He asks "what is the mortality of this operation, now so unnecessarily performed? We shall never know." He puts it at twenty-five per cent. and thinks it much higher. "One out of every four, dies from this operation for the removal of tumors that of themselves rarely shorten life. No one has a right to rush a patient into such fearful risk and yet it is done every day." Dr. Yarrick, of Jersey City, at the meeting of the Section of Surgery, of the International Medical Congress, in Washington, D. C., last summer, said: "That it is a question yet to be determined whether such operations as this are likely to mitigate suffering or prolong life beyond the average duration of the disease, if left to take its course without interference. Any operation or method of treatment whose record does not show a prolongation of life, beyond the utmost limit of the duration of the disease if left to itself, is useless and should be avoided."

Dr. Frank C. Bressler said: Sarcoma is not so frequent as carcinoma. A few years ago this case would not have been operated on, she would have died. Vaginal hysterectomy was first performed in this county by Dr. Lane, of San Francisco, Cal., he reports two deaths in ten cases, a mortality of twenty per cent. Hunter, of New York, lost one in eight, a mortality of twelve and a half per cent. the aggregate from a large number of cases gives a mortality of about fifteen per cent. The operation has been modified from time to time and since the forceps have been applied, to control hæmorrhage, instead of the ligature, the percentage of deaths is less, the latest statistics puts it at about six per cent. Stimson, of New York, has modified the operation, he does a primary laparotomy and ligates all the vessels, then he removes the uterus per vaginam. It is probable that with this method, the death rate will be still reduced.

Dr. J. W. Chambers asked: What becomes of the ovary left in the abdomen, as in this case?

Dr. J. H. Scarff said: It will atrophy, as a rule they give no trouble.

Dr. J. W. Chambers said: There is nothing so deceiving under the microscope as pathological specimens from

the uterus. Most pathologists examine scrapings from the uterus with fear and trembling. They are anxious to get the clinical symptoms in the case and they regard the clinical evidence of more value than the microscopical. They cannot recognize granular tissue from sarcomatous tissue, that is why they fear an examination of scrapings. The operation of hysterectomy is a justifiable one, statistics will bear this out. In fact all organs that are not essential to the life of the individual, may be removed with comparatively little danger to the patients.

Dr. Wilmer Brinton said: He agreed with Dr. Chambers. In looking at the specimen, the gross appearance was not typical of sarcoma, it looked like a normal uterus of a woman of the age of the patient. But he was willing to accept the microscopist's report and therefore thought the operation justifiable.

Dr. J. H. Scarff said: When the patient first came to the hospital, he did not think she was suffering from malignant disease, but attributed all her trouble to the urethra. The first operation received the vesical symptoms only, the bloody, aqueous discharge from the uterus continued and for two months, up to the time of perfoming the hysterectomy she was losing ground. Dr. Norris' quotations from Dr. Keith, of Edinburgh, applies to laparotomy for removal of fibroid tumors in the uterus, where the supra-vaginal hysterectomy was performed. Dr. Keith in all his criticism does not refer to vaginal hysterectomy.

Dr. A. V. Gosweiler read a paper on

DIET.

Dr. Hiram Woods made

SOME PRACTICAL REMARKS ON EYE DISEASES.

He said that the above subject was given him by the Secretary of the Society, and that he thought a few minutes might, possibly, be spent with profit in considering some of the common eye diseases which fall into the hands of the family physician. His experience at the Eye and Ear Hospital had convinced him that in the use of some of the ordinary remedies in eye diseases, mistakes were frequently made —sometimes only to the patient's discomfort, and often to his positive harm.

Sulphate of zinc is probably the remedy most commonly ordered by the general practitioner for conjunctivitis. It is usually given in the strength of at least a grain or two to the ounce of water, and sometimes a five or ten grain solution is ordered. Even when the conditions call for this astringent, this strength is too great and causes burning and smarting of the conjunctiva which is entirely unnecessary for the cure of the disease. These sensations sometimes persist for an hour or more, and render light painful. In most cases one-half grain to the fluid ounce is plenty strong enough, and will do the work better than a stronger solution. He had occasionally seen even solutions of this strength cause disagreeable and persistent burning of the conjunctiva. Sulphate of zinc is not the remedy proper in the ordinary forms of conjunctival irritation accompanied by the well-known symptoms of "a gritty feeling in the eyes," and some little congestion of the palpebral conjunctiva, but without any swelling of this membrane or mucous secretion. Borax or boracic acid, in solutions of ten grains to the ounce of the former, or four or six of the latter, are much better, and are non-irritating. This condition of the conjunctiva is often dependent upon some uncorrected error of refraction, and will persistently recur till the cause is removed. Zinc does its best work in the purely catarrhal forms of conjunctivitis shown by deep congestion of the palpebral membrane, injection of the ocular vessels, and secretion of muous which glues the eyes together during the night.

Another remedy about which there seems to be some misapprehension, is nitrate of silver. Its place is in the treatment of purulent conjunctivitis, especially the ophthalmia neonatorum. This disease is perfectly curable, and no eye should be lost provided it is seen before the cornea is involved. Cleanliness, by

washing the eye, hourly if necessary, with warm water, and the daily application of a five grain solution of nitrate of silver will promptly stop the discharge and prevent incurable blindness. At the hospital, within the last year, the nurse has been given a solution of bichloride of mercury (1-4000) to be used in washing the eye. He had never seen an eye lost, if this treatment was instituted before the cornea had gotten in trouble. And yet it will not generally require more than three or four days visiting at any large eye hospital to convince one that dreadful and unpardonable mistakes are sometimes made.

A baby three weeks old was brought to the hospital to "have a white spot taken off the eye." The woman bringing the child said the eye had commenced to matter the second day. The only treatment used by the medical attendant had been the external application of rose water. The cornea was ulcerated and the eye useless. There was purulent ophthalmia in the other eye, and the cornea was still clear. The suppuration was promptly stopped by the treatment mentioned. While sometimes neglected here, however, nitrate of silver is on the other hand, in ordinary conjunctivitis where it is of no use, and in corneal ulcerations, where it often adds so to the pain. Rarely the stick of silver is used with benefit in this latter trouble, but it requires much care, and is seldom indicated.

Another agent which is frequently misused is atropia. In some forms of eye disease which are very painful, atropia is efficacious. Iritic troubles are the most prominent, and the pain of corneal ulceration is often markedly relieved. These facts seem to have led to the conclusion that atropia is a remedy of universal application in "painful" eyes. It is always necessary to inquire into the character of the pain, when a patient complains of the eyes hurting him. The burning and "gritty feeling" of conjunctivitis is sometimes called pain. The stiff burning feeling of the lids in blepharitis is also spoken of as pain. In such troubles atropia will not only do no good, but, by dilating the pupil and paralyzing the accommodation, will add photophobia and indistinct vision to the patient's other discomforts. Frequently persons apply to specialists on account of the defective vision following the use of eye drops. In the large majority of cases atropia is not indicated when the pupil responds to light. In persons beyond middle life the use of atropia to relieve pain is sometimes followed by serious consequences. Neuralgic pains in the eye and temple, specially if accompanied by moderate dilatation of the pupil or any indistinctness of vision, should always raise the suspicion of glaucoma. If atropia be employed here the trouble is only increased. To a less extent what has been said of atropia may also be said of cocaine. It is very efficacious in quieting the pains of superficial inflammation, but is not so useful in intraocular troubles. Dr. Chisolm some time ago reported a case of acute glaucoma, following the instillation of cocaine into the eye of a man already predisposed to the disease. Occasionally one meets with a case in which atropia has not been used though imperatively demanded. There is a form of plastic iritis which developes without any deformity in the shape of the pupil which remains round and small. There is not always pain, and the "ciliary congestion," which is characteristic of intraocular inflammation, may either escape observation or be concealed by deep conjunctival congestion. The iris will, if carefully examined, look dull and the pupil will not respond promptly to light. Such cases are sometimes treated as cases of conjunctivitis, by astringent collyria. In this way time is lost and firm posterior synechiæ may form. In such doubtful cases the instillation of atropia will clear up the diagnosis by producing full and even dilatation of the pupil if the disease is conjunctival.

As for the popular yellow oxide of mercury ointment, in the strength of 2 parts to the grains of vaseline or lanoline it is very useful in lid troubles, provided the ointment it is properly made. Sometimes it causes a catarrhal conjunctivitis. In most of these cases a close observation will reveal minute particles of the oxide powder which have not become properly incorporated with

the menstrum. This is of course the druggist's fault, but it is an accident of frequent occurrence. Possibly the making of the ointment requires more than ordinary care. In a few cases, however, conjunctivitis follows the use of this ointment even where there is nothing to desire in its preparation.

Dr. Thomas B. Evans said: He endorsed all that Dr. Woods had said. He had found that the best method of preparing the yellow oxide of mercury ointment, was to rub the powder up with a few drops of sweet oil, before adding the vaseline or lanoline. If it were prepared thus you would always get a smooth, bland ointment. In those cases where this ointment was not well borne, he found that two grains of lead ointment to the ounce of lanoline was attended with good results.

Dr. E. M. Reid said: He had acase of purulent conjunctivis where the eyes were not effectually cleansed, he ordered a fountain syringe to be used three times a day and thus he got the eyes properly cleansed. The case was complicated with eczema of the face and ears, and he used an ointment of ten grains of calomel to the ounce of vaseline, this ointment was used in the eyes as well as on the face and it acted very well. The general practitioner is indebted to the specialist for many points of interest in the treatment of disease, but he thought that the specialist owed something also to the general profession. About twenty years ago it became generally accepted among the general profession that zinc sulphate was being used in too strong a solution, causing discomfort and pain. Since that time he had been in the habit of using it in the strength of $\frac{1}{4}$ to $\frac{1}{2}$ grain to the ounce. As to atropia for diagnostic purposes, he did not think we could rely on it to make the diagnosis between iritis and conjunctivis, in the first twenty-four hours of an attack.

Dr. Frank Bressler said: In opacities of the cornea, we are told, if the calomel is impure it is apt to form bichloride of mercury and should therefore be used with caution. Where calomel is used topically, the internal administration of the iodides should be avoided, as it may cause the formation of a membrane which closely simulates the membrane of diphtheria. Lead solutions should not be used where there is an abrasion of the cornea, as in corneal ulcers, as they may cause opacities that will be permanent. Make it a rule to examine the tension of the eye ball in all cases and if the tension is hard, send it to a specialist. There is a form of serious iritis which requires considerable expertness to recognize and by sending such a case to specialist, you may save yourself from odium.

Dr. Wilmer Brinton said: It is estimated that about 75 per cent of all the blind people in the world, are so, as a result of ophthalmia neonatorum that was neglected or not properly treated at the time of the attack. This fact has been recognized in the European lying-in hospitals and is being guarded against by the methods of prophylaxis there practised. There, every child that is born has a drop or two of a solution of nitrate of silver, in the strength of one or two grains to the ounce, instilled in the eyes when washed and dressed by the nurse. In treating ohpthalmia neoatroum, he always cleanses the eyes himself and instills a five or ten grain solution of nitrate of silver once a day, for several days, until he feels he can trust the case to the nurse.

Dr. Hiram Woods said: Serious iritis is rare and Dr. Bressler's point is good, when a patient shrinks from the touch on examination, you may always suspect some intra-ocular trouble.

Dr. Reid raises an interesting point as to the value of atropine for diagnosing between an iritis and a conjunctivis in the first twenty-four hours of attack. There must be a stage of congestion before there is an effusion, but we may rarely see cases of any kind so early as that. If adhesions have occurred and the atropia break them up, there will always be pigmentary deposits on the lens to show that adhesions had taken place.

J. Wm. Funck, M. D., Sec'y.
1710 W. Fayette Street.

MARYLAND MEDICAL JOURNAL

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WILLIAM B. CANFIELD, A.M., M.D., Editor.

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BALTIMORE, JUNE 8, 1889.

Editorial.

THE JOHNSTOWN SUFFERERS.—At a time when the history of this most horrible calamity is filling all the papers, it would be superfluous in these columns to enlarge on the work of devastation done to life and property. One thing we do know and that is among that class of most generous and least saving men—physicians, there were doubtless in that fated region not a small number who lost everything and life as well. Some have life, but in their present surroundings have nothing else, not even hope. Depending as most of them do on their practice as a means of support, and to state it practically, near a time when it is the custom to render bills, these physicians are probably left with little prospect of work in that region, except what they most nobly render as a charity to the sufferers. As help will be needed in that region for a long time to come and as the physicians probably belong to that class who will not be apt to receive much charity from their fellow men, it is suggested that some money be contributed to the physicians of Johnstown by those of Maryland. Any money sent to the office of this JOURNAL will be promptly acknowledged and forwarded to Dr. J. W. Hamer an old subscriber and a friend of some of the physicians here and his judgment may be relied on. Owing to the delay in the mails Dr. Hamer has not been heard from yet, but there is good reason to believe that he is living. Money may be sent in any way most convenient to the giver and in sums however small and anonymously or otherwise. Let no member of the profession think his or her donation too small, but let it be sent as early as possibly. It will be sent to men who have lost all and yet who are nobly forgetting their own homes in making those of others.

It has been learned that of the thirty physicians in Johnstown, about twenty-three survive. In consideration of the fact that such short notice was given to the profession, the responses have been promptly made with many kind notes of sympathy. Subscriptions will be received and forwarded as long as they are contributed, and it is probable that want of money will be felt for a long time yet. Let all those able give five or ten dollars or even more, and from the rest one dollar or fifty cents will be welcome. Any sums may be contributed anonymously, so that no one need be deterred from giving because he cannot give out of his abundance.

The following amount has been subscribed to evening of April 6th. Later contributions will be acknowledged next week, or in all cases a receipt will be sent when requested.

It is but justice to these subscribers to state that most of them have contributed through their lodges, societies and public channels in addition to the amount here given.

Dr. W. C. Van Bibber	$10.00
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Anonymous	1.00
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Dr. S. T. Earle	1.00
Total to date	$138.00

PENNYROYAL POISONING.—Considering the frequency with which Oil of Pennyroyal is taken by pregnant women for the purpose of producing abortion, it is strange that so few cases of poisoning by this drug are reported. And especially so, because it is probable that doses large enough to produce systematic poisoning are necessary to excite abortion.

Dr. Wingate, of Milwaukee (*Boston Medical and Surgical Journal*, May 30th, 1889,) relates a very instructive case. He was called at noon to see Mrs——, who was "in a fit." The patient, twenty years of age, was lying wholly unconscious, with small pulse, a very quiet respiration, cold extremities, and moderately dilated pupils. She was four months pregnant, and was said to have fallen upon the floor while alone in her room.

Suspecting hysteria, Dr. Wingate made digital pressure on the supra-orbital nerves. In a moment the face began to twitch, a general tremor set it, and then the body assumed a position of extreme opisthotonos, the arms, hands and fingers being strongly contracted. This convulsion lasted a minute and was followed, after two minutes of relaxation, by another of the same character. A hypodermic of morphia sulphate grain $\frac{1}{4}$, atropia sulphate grain $\frac{1}{120}$ was given, and the patient afterwards vomited, and had no more spasms. Becoming soon conscious, she told him that at 10 A. M., she had taken, in a single dose, a teaspoonful of the Oil of Pennyroyal and half a teaspoonful of fluid extract of ergot, to produce abortion.

The further treatment was rest in bed, hot applications and plenty of milk. She talked incoherently for a few hours, and complained of great lameness of the muscles of the neck and back, and also of the flexors of the arms. The next morning she was sitting up. No uterine action was excited, and three months later she was seen to be well advanced in her pregnancy.

It is important to note that toxic symptoms did not appear until one hour and a half after the drug had been taken.

Although Dr. Wingate has never read of a similar case, it is probable that a few have been reported. One such case occurred recently in the practice of a Baltimore physician, but he did not publish an account of it.

Hospital Report.

PRESBYTERIAN EYE, EAR AND THROAT CHARITY HOSPITAL OF BALTIMORE CITY.

BY JULIAN J. CHISOLM, M.D.,
OF BALTIMORE.

During the month of May, 1889, 712 new cases were entered for treatment. The attendance at the Free Dispensary for the month, numbered 2,825—an average of 104 patients for each day of the month. Upon these 127 operations have been performed. Since the 1st of January, 1889, 4,133 new cases have been recorded, and 715 operations have been performed during the five months. Among these were, 61 cataract operations, 37 iridectomies; 18 extirpation of eye-balls, 3 optico-ciliary neurotomies, 2 evisceratations of the eye-balls, 93 tumors removed from the lids, 58 squinting eyes were straightened, 36 tear drops corrected, 6 pterygiums removed, and 7 sclerotomies performed. As a field for eye surgery our Presbyterian Hospital is heading the list for the Special Hospitals in the United States. In the large cities in which Special Hospitals are found general hospitals secure but little of the special practice.

Miscellany.

The Influence of the Nervous System Upon the Renal Function.—Dr. Francesco Spallitta has published some experiments which he has made with the view of ascertaining whether the effects produced on the renal secretion by lesions of the medulla oblongata are due, as held by Ustimowitsch, Heidenhain and B. Sachs. to the alteration of the blood pressure caused by the lesion or, as supposed by Eckhard, to some morbid change in the innervation of the kidney. The plan adopted was to cut through the spinal cord at various levels, and to watch the effect upon the secretion of urine. Dr. Spallitta did not think measurement of the amount of urine secreted of any great importance, as this quantity might be influenced by many circumstances quite independently of the change in the blood pressnre. His observations were chiefly confined to the existence or total suppression of the secretion, and to the chemical changes occurring in that which was secreted. Amongst other precautions, he was careful to avoid as far as possible all loss of blood. For the purpose of collecting the urine he had recourse to catheterism in the case of bitches, and to compression of the abdomen, the nostrils and mouth being closed, in the case of dogs. The bladder was always emptied in this manner immediately after the operation had been performed upon the spinal cord. In order to be certain that the urine found in the bladder at the necropsy was secreted after the spinal cord had been cut, a solution of iodide of potassium was injected under the skin after the operation, and the urine tested for iodine. The results obtained were as follows: 1. Lesions of the cord at the base of the first dorsal vertebra produce no changes in the renal secretion. 2. Sections at the seventh cervical and first dorsal vertebra permit the continuance of the secretion. 3. Sections at the sixth, fifth or fourth cervical vertebra allow the secretion to continue, but cause the urine to contain a certain amount of albumen. 4. Sections at the third or fourth cervical vertebra arrest the secretion altogether. 5. Electrical stimuli applied to the cord in the cervical region arrest the secretion entirely. The theory which seems to Dr. Spallitta to accord best with these facts is that the effect on the renal secretion of lesions of the cord is mainly due to the destruction of special nervous fibrillæ existing in the cord which govern the function of secretion of urine.—*Lancet.*

Ophthalmology in Brussels.—Dr. Coppez, the surgeon in charge of the ophthalmic clinic of St. Jean in Brussels, has recently published a report of the work done in that institution for the year 1888. The total number of operations was upwards of 1100, and included 192 for cataract. In regard to those for senile cataract, numbering 141, the results were most satisfactory, almost all the patients having obtained good vision, whether iridectomy was performed or not. Of fifty cases in which a small flap was made, four had hernia of the iris, which in one of them was aggravated by attempts at excision. Indeed, Dr. Coppez has usually found that it is far better to leave these cases of prolapsed iris alone; for after several weeks it becomes reduced spontaneously, the patient obtaining a very good degree of vision, Dr. Coppez, though in his younger days a warm partisan of von Graefe's operation, now more frequently performs Daviel's, somewhat modified, and does not make up his mind whether to perform iridectomy or not until he sees whether it is desirable during the progress of the operation. Soft cataracts are always operated on by aspiration, twenty-seven of these having been removed without any complication arising during the year. Sixty-nine cases of glaucoma were operated on, but thirty-four other cases were seen where the eye was irreparably gone. With the exception of five, where the disease was of the hæmorrhagic form, these might have been most of them saved, had they been skilfully managed from the beginning, by the instillation of eserine or by early iridectomy; but, notwithstanding the

progress of medical education, only too many of these cases are allowed to become hopeless before they receive recognition or proper attention, showing that the ignorance Mr. Bowman complained of in England twenty-five years ago is still only too common in Belgium, notwithstanding the number of ophthalmic surgeons who are to be found there. During the experience of Dr. Coppez, lasting over twenty years and covering nearly 80,000 eye cases, the number of such eyes seen have been 1077 (in 898 patients). Of these, 310 eyes were irreparably lost when first seen, 115 of the patients having both eyes totally and hopelessly blind.—*Lancet*

The Bacteriology of Tetanus.—Professor Bizzozero has just submitted to the Royal Medical Academy of Turin the results obtained by Professor Tizzoni of Bologna, and Signora Giuseppina Cattani on the bacillus tetani. These investigators took their material from a patient in the surgical wards, the victim of a fracture the seat of which had been contaminated by soil from the ground on which he had fallen. Traumatic tetanus of the most characteristic kind had ensued. Experiments made with the living blood in great quantity, with the median nerve and medulla of the bone taken a little above the point of fracture immediately after amputation of the limb, and also with the brain and spleen after death, yielded negative results, both with the cultures and the experiments themselves. From the material taken from the osseous sufaces of the fracture and from the soft parts immediately contiguous, there were obtained other micro-organisms and the "bacillus spilliformis" of Nicolaier. These latter, inoculated in animals, produced tetanus, followed by death after twenty-four or forty hours. Left to themselves for three months in blood serum slightly solidified at a low temperature, there was again obtained from their inoculation distinct tetanus. Cultures of this liquid yielded a coccus, a short bacillus, and the bacillus of Nicolaier. Such colonies become so intimately fused with others that not seldom the transplantings from them turn out impure. This result probably accounts for the findings of Drs. Belfanti and Pescarolo. In any case Drs. Tizzoni and Cattani are the first, according to Professor Bizzozero, who have obtained a pure culture of the bacillus tetani, and who have kept it such throughout successive transplantings. The sequel of their researches will be awaited with special interest.—*Lancet.*

Etymology of a Familiar Word.—A member of the bar, distinguished alike for his eminence as a jurist and his profound general erudition, gave me recently the etymology of a familiar word that few can correctly spell and still fewer trace to its origin. He said the Roman diminutive *ette* contracted to *et* abounds in such word as streamlet, a little stream; rivulet, a little river, etc., while the Saxon diminutive *ock* serves a similar purpose in such words as hillock, a little hill, and bullock, a little bull, and plural, bullocks, little bulls. So it appears at least that the familiar name by which the schoolboy calls his testicles does not belong to the realm of slang, but descends to us straight from the shelves of mediæval classics.—E. R. P.—*Journal of Cutaneous and Genito-Urinary Diseases.*

The Vision of Insects.—According to a communication made by Professor Siegmund Exner, the well-known physiologist, insects get by their composite eyes a single erect image of exterior objects; and their dioptrical apparatus acts like an astronomical telescope. By Exner's experiments, which were made on Lampyris splendidula, the old theory of the mosaic vision of insects is definitely disproved. It is also interesting to note that the pigmented layer surrounding the crystalloid bodies of the insect's eye is elongated by the action of light and shortened in darkness.—*Lancet.*

Medical Items.

Dr. John G. Jay was married last week and sailed for Europe with his bride.

Dr. Nathan Ryno Smith was married on Tuesday last.

Dr. James Ethelbert Morgan a leading physician of Washington died there recently.

Dr. P. Bryson Wood was married last Wednesday.

The *Medizinal Zeitung*, edited by Dr. Ph. J. Schreiber has just appeared at Dayton O.

Dr. Paul Bricon of the editorial staff of the *Progrès Médical* has recently died of heart disease.

The *St. Louis Polyclinic* is a new monthly published by the Faculty of the St. Louis Post-Graduate School of Medicine.

The Russian Government has granted £300 ($1500) for a special laboratory and veterinary clinic for the study of Glanders at Dorpat.

Surgeon General Hamilton agrees with many of the physicians at Johnstown, that the bodies should be burnt to prevent disease.

It is reported that one out of every five school children in Philadelphia is obliged to make use of glasses, and the proportion is rapidly increasing.

From this time forward the College of Physicians and Surgeons at Keokuk, Iowa, will require an attendance of three years instead of two to become a candidate for graduation.

It is reported that the various medical colleges of this country, in ten years from 1877 to 1887, turned out thirty-six thousand and ninety-seven doctors.

Dr. John N. Mackenzie was elected President of the American Laryngological Association at its Eleventh Annual Meeting held in Washington last week.

Dr. Christopher Johnston, Jr., has received from the Johns Hopkins University a Fellowship in the Semitic Languages. He will give up medicine.

Among the physicians who left Philadelphia on the relief corps for Johnstown, were Drs. H. A. Hare and A. L. Hummel of Philadelphia.

The various medical Societies could well afford to donate a small amount to the physicians of Johnstown. It may be sent through the B. & O. Express Co., or this JOURNAL.

The announcement is made to the members of the Medical and Chirurgical Faculty of Maryland, that on and after June 4th, 1889, the Library will be open from 12 M. to 8 P. M. daily, except Sundays and Legal Holidays.

The *Kansas Medical Journal* is a new, enterprising and very readable medical monthly published at Topeka. The Editorial Committee consists of Drs. W. I. Schenck, J. E. Minney and S. G. Stewart.

The authorities of Memphis have issued an order to the effect that all persons practising medicine in the taxed district must register their full names, residence and years of practice. The reason this has been done is on account of the irrregularity of issuing death certificates.

The *British Medical Journal* announces that at the fifty-seventh annual meeting, to be held at Leeds, on the 13th, 14th, 15th and 16th of August, the address in medicine will be given by Dr. J. Hughlings Jackson, the address in surgery by Mr T. Pridgin Teale, and the address in psychology by Sir J. Crichton Browne.

Dr. Robert B. Morison sails for Europe next month. He goes as a delegate from the American Dermatological Society to the International Congress of Dermatology and Syphilography to be held at Paris, August 5th to 10th. Dr. Morison will read a paper there entitled "Notes on the Formation of Pigment in the Negro."

A telegram from Johnstown, announces very little sickness from exposure and few cases of pneumonia and measles. The swift rushing water has carried away much of the dirt, leaving the ground comparatively clean. No more physicians are needed, but medicines are wanted. The mental condition of almost every former resident of Johnstown is one of the gravest character. Pure water is scarce and the towns in that neighborhood will have to exercise great caution in using the water.

The following officers were elected for the ensuing year at the last meeting of the Baltimore Academy of Medicine *President*, G. W. Miltenberger; *Vice-Presidents*, P. H. Reiche, C. C. Bombaugh; *Treasurer*, G. L. Taneyhill; *Secretary*, A. K. Bond; *Reporting Secretary*, W. B. Canfield; *Executive Committee*, P. C. Williams, B. B. Browne, J. G. Jay; *Delegates to American Medical Association*, F. T. Miles, P. H. Reiche, B. B. Browne, G. L. Taneyhill and J. R. Uhler.

M. Korosi, of the Hungarian Academy of Sciences, has collected about 30,000 data, and has come to the following conlusions: Mothers under 20 years of age and fathers under 24 have children more weakly than parents of riper age. Their children are more subject to pulmonary diseases. The healthiest children are those whose fathers are from 25 to 40 years of age and whose mothers are from 20 to 30 years old, M. Korosi says and most medical men indorse this view that the best marriages are those in which the husband is senior to the wife.

Original Articles

RECENT ADVANCES IN GYNECOLOGY.*

BY THOMAS A. ASHBY, M. D.,
OF BALTIMORE, MD.

[Being Chairman's Report of the Section on Obstetrics and Gynecology.]

ABDOMINAL SURGERY.

The subject of Abdominal Surgery continues to claim the earnest attention of a large class of workers, and presents the results of a growing skill and larger experience both in the relief afforded in a larger range of maladies and in the statistics of mortality. With a larger study of pelvic pathology has come a more correct understanding of various conditions, hitherto tentatively studied and treated but now approached through radical methods of procedure giving results most satisfactory in character. With a liberation of the surgical mind from the dreaded fear of the peritoneum and with well defined methods of cleanliness and asepticism,

EXPLORATORY LAPAROTOMY,

as an aid to diagnosis, has come into just prominence and offers to the surgeon the only correct avenue to the study and treatment of many forms of obscure intra-abdominal conditions. The frequency with which exploratory laparotomy is now employed as an aid to diagnosis is a noticeable feature of the year's progress, and the excellent results which have followed the legitimate adoption of this procedure is an index of the important service the procedure is destined to render to humanity. So long as the contents of the abdominal cavity were closed against a legitimate and cautious inspection by ultra-conservatism and inherited prejudices just so long were the wheels of progress clogged against scientific development in this field, but with the growth of liberal opinions, with the adoption of rational methods, with the proof that such methods are correct and pregnant with good results, have come opportunities which the judicious surgeon is not only prepared to take advantage of but has actually demonstrated to be worthy of his confidence.

No one can study the progress of laparotomy statistics without arriving at the conclusion that a vast field of surgical exploit has been opened up for successful cultivation and development through this procedure, and whilst one may deplore to some extent the incautious and reckless way in which the field is being cultivated it must be admitted that the field in itself is a legitimate territory which will yield its rich harvest to the careful tiller of its soil. If in many ways abdominal surgery has been abused by the injudicious and unskilful who rudely invade its precincts upon any and every occasion, for any and every symptom, it must be credited with a careful and prudent study, and with a development so promising that its limitations are far from having been reached.

LAPAROTOMY FOR PELVIC ABSCESS.

A study of intra-pelvic disease through the aid of exploratory laparotomy has demonstrated a fact, which is gradually gaining upon the professional mind, that many forms of pelvic abscess originate primarily in tubal inflammation and not in the peri-uterine connective tissue. The result has been that attempts are now made, and with success, to remove by laparotomy the circumscribed abscess cavity and finally dispose of the localized trouble. It is quite true that this subject is more or less sub-judice and now exciting wide differences of opinion among careful students and observers, yet it seems to be clear that the argument in support of this view is founded upon available proof and that future investigations will largely reconstruct long prevalent opinions as to the pathology of pelvic abscess. Tait, Wylie and others have shown that the tubal mucous membrane by continuity of its surface from the uterine cavity is a natural soil for the development

*Read before the Medical and Chirurgical Faculty at its 91st Annual Meeting, April 25, 1889.

of inflammation and pus accumulations, and that it is along this route that pelvic inflammatory troubles are established. Inflammation of the edometrium and septic processes following abortions, miscarriages and labor at full term seek this avenue of extension by preference. As a consequence of this view pyo-salpinx is recognized as the chief link in the chain of pelvic inflammations and pus accumulations. The local process originating in the tubes, either by extension of the inflammation or by over-distension and rupture of the tubal pus accumulation, the peri-uterine and pelvic cellular tissues become flooded with inflammatory deposits and pus formations which lead to local and systemic trouble or to ultimate destruction of life. Whilst it is not claimed that the tubes are the invariable route for the extension of uterine inflammations to the pelvic tissues, the fact is gaining ground that pelvic inflammations and abscesses often originate in the manner explained and that the methods of treatment formerly in vogue for such conditions need reconstruction in numerous instances. Grant that pyo-salpinx is the prime factor in pelvic abscess what is more rational than the enucleation of the pus cavity by laparotomy and the consequent arrest of a threatened rupture and general infiltration of pus into the pelvic connective tissue which must ultimately be disposed of through the vagina or through channels even less favorable to the closure of the abscess cavity.

That pus tubes rupture as the almost invariable rule, that septic peritonitis is a frequent result of such ruptures, that extensive burrowing of pus and adhesive inflammations follow, the results of recent studies clearly show. The lesson to be taught by such pathological studies and by clinical experience is clearly this, that such conditions demand a prompt recognition and radical treatment by abdominal section in the vast majority of cases. The most earnest advocates of this view of pelvic abscess by no means insist upon laparotomy until the indications demand the procedure, but they do claim that such accumulations of pus within the tubes must be viewed from a surgical standpoint and must be brought under the control of surgical methods rather than be permited to persist as foci of general pelvic-infiltration and septic peritonitis. Nip the process in the bud by enucleation of the pus sac and further extension is prevented, wait until general infiltration has occurred or septic poisoning develops and the exsection becomes a matter of far greater significance. View the train of symptoms from the standpoint of the abdominal surgeon and the method proposed for its treatment seems both rational and proper, but view such cases from a general standpoint and innumerable difficulties arise.

To attempt to treat cases of pelvic abscess by laparotomy under conditions often met with in general practice can not be regarded in any other light than a most hazardous procedure. The personal equation of the operator, the local surroundings and the condition of the patient are too important factors to be considered in such a discussion to warrant any dogmatic statement as to the plan of treatment absolutely required in a given case. The results of treatment bear such a close relation to conditions and surroundings that the method employed for many reasons must be one of judicious selection and not from arbitrary choice. That the treatment of pelvic abscess by laparotomy is entitled to more careful and earnest consideration all must admit who have given any study to the subject, that it offers rational and hopeful indications of relief to many patients who otherwise must drag along weary months of suffering and even possible death I think can not be denied. But before the inexperienced operator essays to play the rôle of the laparotomist in such cases, let him duly consider his personal responsibility and his fitness to perform the work he undertakes as important factors in the results aimed at.

PRIMARY LAPAROTOMY IN TUBAL PREGNANCY.

This procedure has been brought into conspicuous prominence during the year by reason of its successful employment

in several cases. The indications for the procedure have been carefully presented in the literature of the year and a discussion *pro* and *con* has taken place. The mere suggestion of a laparotomy for the removal of an ectopic gestation is enough in itself to provoke a discussion, but since it has been demonstrated that the procedure, by reason of its successful employment, is entitled to consideration over other methods, the discussion has waxed warm. It is now held by many authorities that the vast majority if not all cases of ectopic gestation begin in the tube and that the different varieties are the remote results of this condition through some accidental circumstance. If such be the fact the treatment of ectopic pregnancy may be considered from a tubal standpoint. Through accidental or pathological causation gestation is inaugurated in an abnormal *situ*. It must proceed to one of two results, complete development in local *situ* to full gestation, or to early rupture with probable fetal and maternal death. The condition can not be regarded in any other light than as one of the gravest with which the physician has to deal. At the present day and in the light of known facts two plans of treatment have chief consideration. The first plan aims to destroy the fetus in in course of gestation and leaves it *in situ* to be disposed of by nature; the second plan is to remove the product of conception by primary laparotomy, that is, the moment the condition is gravely suspected or actually determined, or by secondary laparotomy, that is, at the time of actual rupture of the fetal sac. For some years past it has been the favorite mode of practice to destroy the fetus by the use of electricity. The galvanic current is carried through the growing tumor in such strength and at such intervals as have been found necessary to accomplish the result aimed at. Numerous cases are on record in which this method of treatment was successfully employed. The authorities who advocate this method of feticide do so on the ground that it is effective and free from casualties. It is argued that where the diagnosis of ectopic gestation can be made prior to the third or fourth month and before symptoms of rupture have occurred that electricity destroys the fetus and thereby arrests the dangers incident to its growth. It is asserted that electricity is far less dangerous than laparotomy and is therefore the method of election for the general practitioner or inexperienced laparotomist. It is claimed that the dead fetus and secundines left in the sac are harmless and become subsequently disposed of by absorption or by inclosure. Again it is held that if an error of diagnosis has been made the treatment by electricity can not possibly do harm and is the best method for the treatment of many of those conditions which most resemble ectopic pregnancy. An additional advantage is presented in the fact that where electricity fails to destroy the fetus laparotomy may then be resorted to with as much safety as prior to its use. Were all the statements here presented by those who advocate the use of electricity accepted as facts there would be an unimpeachable evidence in the argument used. But such is the progress of opinion in our day that bolder and more radical views will assert themselves and men are not wanting who challenge methods which are not wholly rational and radical.

The new school of abdominal surgeons under the lead of Tait, Martin, Janvrin and Johnstone boldly attack the electrical treatment and assert that it is illogical in theory and unscientific in practice, that primary laparotomy is to be preferred because it effectually disposes of the sac and its contents and removes every element of future trouble. The facts upon which this method is sustained are these: 1st, electricity is not certain; 2nd, it can at best only destroy the life of the fetus; 3rd, the placenta remains and may continue to grow; 4th, if the placenta perishes it may become the seat of septic or inflammatory processes which may be dangerous to the life of the patient or disastrous to her subsequent health. Primary laparotomy, on the contrary, it is argued is both rational and radical. It enables the operator to remove every

element of present and future trouble. The procedure carefully performed is no more dangerous than an ovariotomy or o phorectomy. Statistics are not wanting to prove the correctness of the latter proposition for the record goes to show that in cases where laparotomy was performed prior to the rupture of the tube, the removal of the product was easily accomplished without maternal mortality and in those cases where the laparotomy was undertaken as soon as rupture of the tube was ascertained the mortality bore direct relation to the amount of shock and hemorrhage at the time of the rupture and the length of time intervening between the rupture and the laparotomy. One cannot escape the conviction that the knife offers the most rational hope of relief in those conditions of ectopic pregnancy where the diagnosis can be made, whether employed prior to the stage of rupture or after rupture has occurred. This conviction is strengthened with every new experience. The difficulties which retard the adoption of any rational and radical method are generally those which come from the standpoint of inexperience and want of skill. The advocates of electricity assert that this agent is harmless in the hands of the average man of experience, that it is therefore the only safe method for the general practitioner, since laparotomy only yields its best results to trained hands and skilful methods of detail. The force of this argument is admitted, but when it is borne in mind that the diagnosis of ectopic gestation is seldom reached except through a trained experience, that such cases by natural selection usually fall into the hands of the specialist, the force of the argument is greatly weakened. When the experienced specialist is usually consulted to establish the diagnosis of ectopic gestation what is more rational than that he should be solicited to institute the method of treatment? It is only in cases in which a diagnosis has been gravely suspected or actually reached prior to rupture that electricity is at all indicated. In such cases as give notice of this condition by actual rupture laparotomy can only be considered, for here the current can have no possible value. Were it strictly possible to reach a diagnosis of ectopic pregnancy in the first six weeks or two months of gestation the current might be resorted to with the strongest hope of benefit, but the longer the gestation has continued beyond the second month the greater do the indications appear for the use of the knife. The very first suggestion or warning of an extra-uterine fetation would seem to point to methods of delay, for who can be certain that the process has been established until observation has been confirmed by evidence of continued development? It is during this period of expectancy that electricity should be employed if employed at all, for when the diagnosis has been made actually clear nothing seems more rational that to open the abdomen and remove the fetal growth and its appendages. Those authorities who advocate the method of primary laparotomy do not hesitate to assert that the procedure is indicated when the diagnosis is involved in doubt on the ground that a simple exploratory incision is in itself comparatively harmless and makes the diagnosis exact, thus rendering the use of electricity unnecessary. Whilst opinions are now divided on this subject one cannot review such opinions without the conviction that the procedure of primary laparotomy is fast gaining ground over the method by electricity and that it seems destined to take preference over all other methods heretofore suggested for the treatment of the condition of extra-uterine fetation.

[Note.—The frequency with which ectopic pregnancy occurs will appear astonishing to one who has not kept pace with the literature of this subject within the past three years. Mr. Lawson Tait has had the largest experience of any single operator, and has reported the largest number of cases. Mr. Tait has operated 42 times with only 2 deaths.

Dr. Joseph Price, of Philadelphia, has operated upon twelve cases within the past two and a half years. Dr. Thomas, of New York, has observed 13 cases in his experience.

Dr. H. F. Formad, of Philadelphia, city coroner, states that during five years

of continuous service conducting all the autopsy work, he met 19 cases of death from extra-uterine pregnancy. In all cases, save one, death was due to hæmorrhage in the abdomen from rupture of the sac, and occurred within 12 hours. All cases were tubal and all between 4 and 8 weeks of fetal development. All had borne children, and nearly all had chronic salpingitis with adhesions and contortions of the tubes.

During the past three years 104 cases of ectopic pregnancy have been reported in medical journals printed in the English language. 35 of the 104 were not operated on, 21 of the 35 died before end of the 8th month. Of these 21, 11 died before end of 3d month. Of the 14 which recovered without use of electricity or operation, in 9 the fetus sloughed into rectum, bladder or uterus.

Of the 104 cases, 20 were treated with electricity, with two deaths. 49 cases were treated by surgical operation, with 14 deaths. Of these 49 cases, 20 laparotomies were performed during viability of child, with 6 deaths. 19 laparotomies were performed before end of 4th month, with only two deaths. In 10 cases laparotomy was performed after 4th month and before 10th month, with 4 deaths.]

ELECTRICITY IN GYNECOLOGY.

During the past year, as in the year which preceded, no subject has aroused greater interest in gynecological practice than the use of electricity. Whilst this agent has been employed for some years back in gynecological work under various forms and according to various formulæ it has been made to assume such new relations to gynecological therapeutics that it appears in an entirely new rôle as a medicinal agency. The chief factors in the rehabilitation of electricity are found in the use of the agent in currents of high electro-motive force, of different degrees of tension, in systematic and regulated dosage and in accordance with polar action. Under the directing influence of Apostoli the entire employment of electricity in gynecological work has been revolutionized and now approaches a system of scientific precision. I say approaches, for I am far from believing that the profession has reached beyond the experimental stage and that the value of the agent has been demonstrated to more than a partial conclusion. Whilst prepared to admit that much has been done in the construction of apparatus, in measurement and application of various strengths of currents, in determining the laws of resistance of tissues and in the study of the various conditions in which the different currents and doses are indicated, I am satisfied we have not reached a position from which one can say that the agent or its methods of employment are as fully understood or are giving as satisfactory results as are to be desired. As a therapeutic resource its value is limited by many elements of uncertainty. Our knowledge of the action of the different currents upon living tissues under many conditions is yet limited. It is known that the positive pole is capable of instituting entirely different influences from the negative, and *vice versa*, and yet within a limited range of application the two poles are often employed indifferently and without a definite understanding of the effect sought or of the indications present. If electricity has a therapeutic value the action of each pole is the most important element in determining the therapeutic effect. We must look to the judicious selection of the pole as much as to dosage for accurate results. The action of the constant current is still involved in doubt. Whether it coagulates albumen or creates an interstitial inflammation in a fibroid growth has not been determined. Time may demonstrate that the current excites a change of cell life in addition to the purely chemical action which takes place around the poles. It is known that the galvanic current will reduce a fibroid tumor; why and how the reduction takes place we do not know. This much is known, the negative pole of the constant current is catalytic, destructive, disintegrating, that it promotes liquefaction and absorption of tissue. It is likewise known that the positive pole is hæmostatic and coagulating. The extent of the therapeutic

effect of each pole is dependent upon the strength of the current and the resistance of the tissues. The elementary facts having been reached the indications for the employment of the constant current are foreshadowed, still how much is there of uncertainity in the application of the agent when it is considered that the methods of generating the current, of measuring its dosage, of applying the poles to tissues of different degrees of density and of resistance are still more or less imperfect as now largely employed in practice? Up to the present time we have some clinical proof of the value of electricity in gynecology, but this must be accepted upon the statements of Apostoli himself and a few of his followers who are in the possession of his methods. I have no intention of questioning the results presented by Apostoli, or by such distinguished authorities as the Keiths, Sir Spencer Wells, Playfair, Engelmann, Massey and others, for they are backed by the most careful work and observation. But I do see too many elements of unreliability in many of the published reports which have been presented to lead me to assume that we have secured anything nearer an approximation of the reliable working properties of electricity. Like many new agents and devices it has been boomed for all that it is worth, and one might readily be led to suppose from the enthusiasm it has evoked, from the paraphernalia in the shape of office fixtures, cabinets, and the like it has called into existence, that it was the great panacea for all the aches and ailments of the woman-kind.

One can readily understand the therapeutic value of electricity in many forms of fibroid growth, symptomatically and destructively, but even in this condition in which its best results have been recorded we are in danger of expecting and promising too much. When all the testimony has been offered *pro* and *con* it will be found that electricity has not given uniform results. In judging of the position which electricity must occupy in gynecological therapeutics one must steer clear of the glowing accounts of those electro-therapeutists who seem to tell us that the sufferings of women will soon end through the use of this agent and like-wise turn away from the ridicule and derision of the strictly surgical school which would make believe that the agent has no value whatever. Electricity must be judged by the profession without praise or abuse. What is needed is a patient investigation of its manysided modes of action with a view of determining its special field of usefulness. For my part I do not believe it is possessed of such wonderful properties or that it is indicated in such a large number of conditions as has been claimed, but I do think that it is a most serviceable remedy in many forms of gynecological work when carefully and intelligently employed.

That its action is empirical is no bar to its value, for who can understand the action of quinine or of iodide of potash? As we have reached a safe position in therapeutics from which quinia and potash can be judiciously employed, so the stand point from which electricity can be employed must be ascertained by observation and experiment.

We owe much to Apostoli for his systematic and careful study of electro-therapeutics as applied to the treatment of fibroid tumors. It is now admitted by those who can judge impartially, by Keith and Wells, that Apostoli is on the right track and that his method of using high currents, his theory of polar action, his system of dosage and exact measurement are in the main correct. His clinical results strongly corroborate his methods and practice. He has shown in numerous cases that fibroid tumors can be absorbed by the negative pole, that hemorrhage from fibroid tumors can be cured by the local coagulating effect of the positive pole applied to the interior of the uterus; he has shown that the neuralgic and mechanical conditions associated with fibroid growth can be relieved by the application of the two currents; he has further shown that in careful work the use of high currents is accompanied with no great discomfort and with little or no danger. Such results are not to be ignored. If it is

possible for Apostoli, for Keith or for Wells to record such results it is to be believed that the time will come when a large number of trained electro-therapeutists will be able to to achieve similar ends. With the growth of abdominal surgery a special class of workers have faithfully and successfully cultivated this field, at one time yielding its results to the few, so with electricity we may expect good work from men who have mastered the details and principles expounded by those in high authority.

Encouraged by his work with the galvanic current, Apostoli has been led to employ the faradic current in various conditions. His studies introduce us to the action of the induced currents of high and low tension, of uni and bi-polar application. As far as is now known the induced current has no chemical or catalytic action, but is limited in its effects to a stimulating influence on muscles and nerves. Its use in gynecology has been suggested and employed in conditions of nervous and muscular relaxation with which are associated uterine displacements, pelvic neuralgic pains, and the like. The employment of the dose is strictly empirical, as no means of measuring this current has been presented. The sensations of the patient are the only guides, but as these are variable quantities the dosage must be wholly inexact. Apostoli claims to have found the induced current of great service, but his rules for using the current seem so indefinite that one will find much difficulty in following them. My own belief is that at the present time we have no reliable data to guide us in the use of the faradic current, and that the indications calling for its employment are very limited. In the application of electricity to gynecological work the galvanic current has been almost exclusively relied on. The theory of the action of this current has suggested its employment chiefly as a substitute for the knife. The discussion of the entire subject of electro-therapeutics is virtually on the question, "Galvanism versus the Knife," or the relative advantages of the one as compared with the other. Men who advocate certain methods are ever in danger of becoming extremists. The advocates of electricity and of the knife seem to occupy this relation to these two important agencies. Apostoli treats all cases of fibroid tumors with electricity. Tait throws overboard electricity and advocates oöphorectomy or hysterectomy. Hanks advocates the constant current in tubal pregnancy. Johnstone insists upon laparotomy. Engelmann employs electricity in cervical stenosis. Goodell advocates rapid dilation, and so the discussion goes. Such discussions and considerations given to a subject become strictly partisan, onesided, entirely too narrow to present a correct standard of work. Science cannot be successfully studied in this way. The future of electro-therapeutics will depend upon a faithful record of facts, upon negative as well as upon positive observation , the one will test its utility as much as the other, for it is just as important to know the conditions which call for its use, the manner of employment, the strength of dosage, as those conditions which negative its administration. The only way to reach such facts is by truthful observation and unprejudiced judgment. I think we have abundant evidence to show that in properly selected cases of fibroid tumor galvanism is not only capable of effecting a symptomatic cure but a reduction of the size of the tumor or its complete removal. On the other hand we have abundant proof that in other forms of fibroid growth it is wholly inefficient and worse than useless, yes positively harmful. In the former condition why use the knife when electricity is efficient, and in the latter case why discard the knife when electricity is inefficient? After this manner of judgment its application in other forms of pelvic and uterine disease must be tested. We will not get what is good in electricity or eliminate what is evil or inefficient until the various indications are carefully and accurately determined, until the agent is employed less in a commercial or mercenary spirit and altogether as a scientific agency. The limit of this paper will not admit of a lengthy statement of the conditions in which electricity may

be found serviceable and in which it is inefficient. I shall, therefore, summarize the following conclusions as a brief outline of present knowledge upon this subject.

1st.—The constant current is chemical, catalytic in its action.

2d.—The faradic current is a nerve and muscle stimulant and excitor.

3d.—The negative pole of the constant current is destructive and disintegrating, the positive astringent and hæmostatic.

4th.—The influence of polar action is modified by the strength of the electromotive force and the internal and external resistance the current must overcome.

5th.—A current ranging from 100 to 300 milliamperemeters is indicated in electrolysis.

6th.—The safety of the current is regulated by the carefulness of administration, gradual increase of dosage, employment of cleanliness and asepticism, proper selection of cases, and accurate knowledge of the history of fibroid growths.

7th.—No fibroid tumor should be attacked by electro-puncture when it is possible to reach the growth through the uterine canal; when the tumor mass can only be reached by puncture the entrance should be *per vaginam* or through the cervix.

8th.—Fibroid tumors which are not solid and free from lymph spaces should not be treated by electrolysis.

9th.—The constant current may be successfully employed in carefully selected cases of chronic inflammatory troubles about the pelvis and uterus.

With the foregoing general considerations as to the employment of electricity we may conclude:

1st.—That electricity is a therapeutic agent of value in gynecology.

2d.—That its value is only apparent in properly selected cases and in well defined conditions.

3d.—That it must be employed in systematic dosage, in perfectly smoothe and uninterrupted current, and in deference to polar action.

4th.—To secure its proper action the operator must understand the principles of electricity, have a practical knowledge of the conditions in which it is indicated and understand the details of administration.

THE APPLICATION OF SPECTROSCOPY TO THE STUDY OF THE BLOOD.*

BY CHRISTOPHER JOHNSTON, M. D.,
OF BALTIMORE.

[Being a part of the chairman's report from the section on Microscopy, Microchemistry and Spectral Analysis.]

The most notable familiarization of the spectroscope in the uses of the clinician was made a few years ago by a Frenchman, Dr. Hénocque, although the spectroscopic examination of the blood, and other fluids and solids had been made twenty or more years ago. The point gained by the gentleman named was simple enough, but objection might be urged against the author on account of the frequent use of his name in the notice he has prepared of the Hénocque's hematoscope, as well as upon the little instrument itself. This reiteration of his name in the premises rather savors of charlatanism, and awakens prejudice. However, the hematoscope is ingenious, and may be mentioned here as a basis of a method of the spectroscopic study of the blood, and which permits the spectral analysis of the blood, the quantitative evaluation of the oxyhemoglobuline, the examination the modifications and of the alterations or changes of the hemoglobuline.

The author of the "notice" † asserts that "blood ought to be examined pure, just as it issues from the vessels;" and he has solved the technical problem by substituting for dilute blood that of a thin layer of this fluid of which the thickness, rendered progressively variable, can be measured and noted in metrical values.

The instrument consists essentially of

*Read before the Medical and Chirurgical Faculty of Maryland at its 91st annual session, April 25, 1889.

†Notice Sur l'Hematoscope, &c, Paris. G. Masson. 1886.

two plates of glass of unequal width. They are superposed in such manner that, being held in contact at one of their extremities, they are separated at the other by a distance of 300 thousands of a millimetre, thus limiting a prismatic capillary space.

A scale, graduated in millimetres, counts from 0 to 60 millimetres. It follows from this arrangement that blood penetrating between these glass plates forms a layer of which the thickness varies from 0 to 300 thousands of a millimetre, or *micra*. Each division of the scale of 1 millimetre corresponds to 5 thousands of a millimetre, or the inclination of the upper plate of glass in 5 thousands of a millimetre. The thickness, therefore, of the layer of blood anywhere is obtained by simply multiplying the number on the scale by 5.

It is evident that blood introduced between the glass plates will be colorless at 0 where they touch each other, and reddish, red or carmine, or more intense, towards 60, where they lie at a distance of 300 thousands of a millimetre; besides the color ought to be deeper in proportion as the blood contains a greater quantity of oxyhemoglobuline or active coloring matter. And the instrument allows an easy comparison, or even a quantitative measure, of the richness of the blood in active coloring matter.

To the complete instrument belongs a plate of white enamel on which appears a millimetric scale, corresponding with the scale upon the lower glass plate, some letters and some figures. To use the whole, superpose the glass plate charged with blood upon the enamel, make the millimetric scales coincide, and then observe how far scale, letters and figures can be read, for it is plain that the less coloring matter, or oxyhemoglobuline, the blood contains, the more extensively will the reading extend. For example, in dealing with well oxygenated, normal blood the reading will be as far as Hemat * * *; in millimetres as far as 17, which multiplied by 5, or 85, gives the thickness of the layer of blood at the point of obscuration of the following letters, and in figures as far as 15, 14, * * * Now the scale of figures, carefully constructed, corresponds to determinate quantities of oxyhemoglobuline, the last figure denoting the quantity of oxyhemoglobuline contained in 100 grammes of blood. In the example before us the amount would be 14 per cent.

Thus we would have:

In letters to Hemat * * corresponding to 17x5=85, giving thickness of the layer of blood at the point of obscuration: and 14 per cent. of oxyhemoglobuline.

Or again, blood from an anemic person leads in letters to Hematoscope d'-Hem * * * in millimetres 47x5=235 thousands of a millimetre, a thicker layer being necessary to obscure, and 14, 13, 12, 11, 10, 9, 8, or 8 per cent. of oxyhemoglobulin.

The difference is remarkable and measurable.

SPECTROSCOPIC ANALYSIS.

If the hematoscope charged with pure blood is placed before the slit of the spectroscope there may be studied the absorption bands which the oxyhemoglobuline presents of different thicknesses. The two absorption bands characteristic of oxyhemoglobuline will appear upon moving the hematoscope from left to right, as also their widening, their confusion, and at the same time the disappearance of the green space which separated them. In other words, the blood is observed in thicknesses varying from 0 to 300 thousands of a millimetre, and, consequently pretty much as if the examination were of graduated dilutions of blood varying between $\frac{1}{300}$ and 1, (allowing that the liquid serving to dilute exerted no action upon the coloring principles of the blood.) Every modification of the coloring matter is easily studied; the mixture of oxyhemoglobulin, and of reduced hemoglobuneline, the presence of methemoglobuline, of oxycarbonated hemoglobuline, and, in fact, all the derivatives of hemoglobuline, present in the hematoscope their characteristic spectral reactions. It can analyse these divers compounds qualitatively, and even quantitively, the most important among them, being, oxyhemoglobuline.

At a certain thickness of the blood,

the slit in a spectroscope of direct vision being applied over it on the hematoscope two equal absorption bands appear; and they correspond to a greater thickness as the blood is more anemic. These bands are of equal extent in typical blood in the spectrum if they are measured by length of waves; they occupy the spaces 530 to 550 and from 570 to 590 millimetres, or L—that is to say, the *first* commences a little before the line D, and the second nearer to E, the two being separated by a green space.

The scale engraved upon the inferior lamina of the hematoscope shows to what division the slit in spectroscope corresponds; but it is easier to note the divisions which represent the tangents vertical to the diaphragm or disc supporting the slit, whether to the left or to the right, and the mean may be taken. For example, with the hematospectro-scopes of direct vision constructed by M. Lutz, in examining typical blood, it will be found that the left tangent corresponds to *seven* divisions, which number must be added to have the position corresponding exactly to that of the slit. This, therefore, is placed at 14 millimetres.

M. Hénocque has prepared a scale which represents the quantity of oxyhemoglobuline contained in the blood for the different thicknesses at which the phenomena of the "two equal bands" are observed, and this scale must be consulted at every examination. For typical blood, as by the scale, there occurs:

The distance at which the two equal bands are observed.	Quantity of Oxy-hemoglobulin for each hundred parts of blood.	Thickness of the corresponding blood in thousandths of a millimetre.
Millimetres	Per cent.	Micra
14	14	70
Or for anaemic blood.		
28	7.0	140

We will not dwell upon the other points.

Dr. Robert Hoffman has moved to 613 Park Avenue, to the office formerly occupied by Drs. Kay and Salzer. Dr. Salzer is at 10 West Madison Street, and Dr. Kay has moved to Scranton, Pa.

THE AMERICAN OBJECTIVE AS COMPARED WITH GERMAN.*

BY CHRISTOPHER JOHNSTON, M. D.,
OF BALTIMORE.

[Being a part of the chairman's report from the section on Microscopy, Microchemistry and Spectral Analysis.]

AMERICAN AND EUROPEAN MICROSCOPES.

Whatever perfection may be attained in the preparation, temporary or permanent, of objects calling for the use of the microscope by reason of the fineness of their structure or the minuteness of the constituent elements, it must be apparent that a greater excellence is aimed at in the construction of the microscopical systems of lenses, preceding and commanding a higher order of preparations to satisfy the cravings of the objective whose scope is again and again widened by successive improvements. The objective, therefore, is the precursor, and methods of preparation are the followers, for they seek continually to make the finer, newer, and crisper performance of the objective available in the service of the microscopical student. A few years ago immersion objectives, and then homogeneous immersion objectives, as first given to the world by Zeiss, of Jena, in Germany, were pushed to their utmost ability of performance; and large were the claims of Zeiss, who really accomplished a great work in his lenses, under the constant watch and care of Prof. Abbé, of Jena, who directed the maker into better paths and furnished many, if not all, new formulæ by which the work was done. But grand old Tolles, and Spencer, of Geneva, N. Y., labored silently, contended every inch gained by foreign artificers, and laid their claims quite as high as theirs.

Zeiss now directed his attention to the glass itself out of which lenses were made, and he turned out objectives constructed upon a new formula, necessitated by the peculiar refractive index and other opti-

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*Read before the Medical and Chirurgical Faculty, at its 91st Annual Meeting, April 25th, 1889.

cal properties of the glass. Then the apochromatic homogeneous immersion came into being, and, for awhile, the microscopical world was dazed with the splendor of its performance. High, however, as are its claims, Tolles and Spencer yield to them in nothing, for which we have the excellent authority of Dr. H. J. Detmers, of Columbus, Ohio; and it is a real pleasure for us Americans to receive the welcome assurance.

In the year 1887 Dr. H. J. Detmers,* President of the Ohio State Microscopical Society and Vice-President of the American Society of Microscopists, reported to the A. S. M. in Pittsburgh some results of an examination of a new Zeiss apochromatic $\frac{1}{12}$th inch homogeneous immersion objective, N. A. 1.40, and its workings with its compensating and projecting eye pieces. He compared its performance with central and oblique light on test objects, bacteria, &c., with that of some of our best American objectives, but particularly with a $\frac{1}{15}$th inch homogeneous immersion objective of Tolles, N. A. 1.30. And the conclusion arrived at was expressed in the following words: "I am convinced that the apochromatic objective examined in no way surpasses the best work (objectives) of our best American makers."

Since the Pittsburgh meeting Dr. Detmers went to Europe and visited three of the principal optical establishments of Germany, namely, those of Ernst Leitz in Wetzlar, of Seibert & Seibert in Wetzlar, and of Dr. Carl Zeiss in Jena. Some balsam mounted *Amphipleuras* from Lake Nippersink and from Lake Pistakee, which Detmers had taken with him from home and which had been easily resolved by lamp light by a Spencer homogeneous immersion objective $\frac{1}{16}$th N. A. 1.30 and a $\frac{1}{15}$th Tolles N. A. 1.30, were shown to Mr. Ernst Leitz, to Mr. Seibert and Dr. Broderick Zeiss, who all failed to resolve them. Now it is possible that, like Tolles himself, these makers lacked the skill most advantageously to manipulate their own instruments. However that may be, the test objects were not resolved in Germany.

For the purpose of photography also, Dr. Detmers claims at least equal performance for American objectives, and rather more than that for photographs of *Amphipleura pellucida* made with a Spencer $\frac{1}{16}$th inch homogeneous immersion objectives, N. A. 1.38, by lamp light and very simple appliances.

The author of the address, already quoted from so freely, concludes by reiterating that he is more than ever convinced that the renowned apochromatic objectives of Germany, with all their recognized excellence and improvements, in *no way surpass* in their performance the best objectives of our best American makers.

Dr. Detmers continues: In at least one respect our first-class American homogeneous immersions are preferable. They all have collar correction, which is not found in any of the apochromatic homogeneous objectives of German opticians. Our American objectives, therefore, are adapted to a larger range of work, and can be used with any tube-length, while the German apochromatics cannot.

But in opposition to the statement of Dr. Detmers the necessity for a collar correction in a homogeneous immersion objective may well be questioned, although some apochromatic homogeneous immersion systems are made upon English orders by the German makers.

Farther, the German apochromatic homogeneous immersion objectives are more expensive than our American objectives of corresponding quality. So, for instance, apochromatic homogeneous immersion objectives are offered in Jena: A $\frac{1}{8}$ inch No. A. 1.30 for 450 m., or about $110; a $\frac{1}{6}$ inch N. A. 1.40 for 550 m., or about $135; a $\frac{1}{12}$ inch N. A. 1.30 for 400 m., or a little less than $100; and a $\frac{1}{12}$ inch N. A. 1.40 for 500 m., or almost $125, while Bausch & Lamb Optical Co. and N. R. Spencer offer their homogeneous immersion objectives N. A. 1.40 and 1.38, respectively, at from 40 to 80 per cent. less, as their catalogue will show.

A single advantage over the American

*Extract from an address delivered before the American Society of Microscopists.

objectives is by some claimed for the apochromatic, and that is the superiority of the latter for photographic work in general. On this ground discussion seems to arise,

But I am aware that the experiences and opinions of Dr. Detmers will be and have been severely criticised, even by men of our own country. It is, however, a consolation to know that we had a Tolles and have a Spencer who could and can rival, at the least, the great makers of objectives of the Old World.

THE TREATMENT OF CHRONIC DIARRHŒA BY THE INTERNAL ADMINISTRATION OF THE SILICATE OF MAGNESIUM.

BY ROBERT HOFFMAN, M. D.,
OF BALTIMORE, MD.

Following the communication of Debove on his success in the treatment of chronic diarrhœa by the internal administration of magnesium silicate in daily doses of about 200 to 600 grammes (6 to 18 drachms), I have made use of this agent in five cases of chronic intestinal catarrh (enterocolitis) with marked success. They were all cases of chronic diarrhœa in adults who for weeks had had 15 to 30 strongly fetid evacuations a day. One case was probably a tuberculous affection of the intestines, but even in this case a striking improvement was noticed from the use of this drug. After having treated the first case it seemed to me as if the effect of the powder was more marked, the nearer it was brought in immediate contact with the thoroughly cleansed intestinal mucous membrane, therefore I made use of the following method of treatment which I can heartily recommend.

The nourishment consisted exclusively of milk, yolk of eggs cooked soft, light soups, and finely cut uncooked meat. For the first three days of the treatment I had four grammes (℥j) of naphthalin given in doses of five decigrammes (gr. viiss) each. At the same time a liter (2qts) of tepid water was injected into the rectum according to the method of Hegar, and this the patient held for five minutes and then passed. Immediately after, the patient was put in the knee elbow position and turned on the side and the following was injected into the rectum.

℞ Carbolic acid
Alcohol āā 1.0. (15 minims.)
Tepid water 1.000 (2qts).

This was also held five minutes and passed. With this treatment the foul odor was weaker on the second day, but the number of evacuations was only slightly affected. On the fourth day 200 to 300 grammes (6 to 9 drachms) of powdered magnesium silicate were given suspended in a liter (2 qts.) of milk, and this was done with no discomfort to the patient who never complained at the size of the powder. The same dose and also the irrigations were kept up for two or three days and sometimes the irrigations lasted longer. After the first day's dose of 200 to 300 grammes (6 to 9 drachms) of magnesium silicate the evacuations decreased in number from 20 and 30 to 10 and 15, and after each irrigation they were from 3 to 5 fewer. At the same time the yellow color of the feces disappeared; these took on their natural color and compact form. The magnesium silicate was passed as such within 24 hours and without any injurious effect. I should like to remark in conclusion that in these five grave cases every possible astringent and opiate had been used for weeks without success and the striking result could only be ascribed to the magnesium silicate which I should like to commend as worthy of further trial.

204 W. Franklin Street.

Sémaine Médicale No. 23, 1888.

Correspondence.

VARICELLA IN ADULTS.

Editor Maryland Medical Journal:

DEAR SIR:—The personal letter I wrote you some few weeks ago, I see, by mistake or otherwise, was published in

your journal, and I also find three answered it. The first two gave a good author; the third (Medicus) did not seem to understand what I wanted. He seems to think I doubt the reality of the disease called small-pox. I have had considerable practice with small-pox, and do not doubt its reality. I wanted to know how many good authors or physicians of experience ever saw a case of varicella or chicken-pox in an adult. Medicus says that all standard medical authorities teach that adults do have chicken-pox. I will refer him to William Pepper. System of Medicine, Vol. 1st. 484, reads thus: "Distinction between mild varioloid and severe varicella in infancy and childhood will always tax to the uttermost the skill of the diagnostician. The sooner it is generally understood that intermediate forms occur which cannot be positively assigned to the one or to the other category, the better it will be for both the profession and the laity. The fact that in the one case there is a generation of a variolous poison capable of producing a contagious disease in *adults*, and in the other a malady which is known to affect children *only* renders the decision important."

2d. Albert H. Buck, of New York. Reference Hand-book of the Medical Science, Vol. 2d, page 92: "Varicella. It rarely occurs the second time in the same individual. *Adults* enjoy special immunity from the disease, although unprotected by an attack in childhood."

3d. Dr. Edward Henoch, director of the clinical polyclinic for disease of children in the Royal Charité, and professor in the University of Berlin: "I have never observed a spread of the affection to the adult members of the family, which would undoubtedly, in some instances, have occurred in small-pox."

The doctors he refers to of Dover I will say cannot have the experience that Baltimore physicians have in these diseases. One of them, I am informed, never saw a case of small-pox until recently, and the other has had a very little practice with it. So you see I need better statistics than I have of my own or they can give me. Further, I think I have some claim as a *Marylander*, (having practised in the State about 10 years,) to ask some questions of Baltimore M. D.'s.

Yours respectfully,

THOS. O. CLEMENTS.

Society Reports.

CLINICAL SOCIETY OF MARYLAND.

STATED MEETING HELD APRIL 19TH, 1889.

The 226th meeting of the Clinical Society of Maryland, was called to order by the Vice-President, Dr. William Green, in the chair.

Drs. Jas. Logie and J. H. T. Earhart were elected members of the Society.

Dr. Joseph T. Smith read a very interesting paper on

THE ETIOLOGY AND TREATMENT OF ACUTE PNEUMONIA.

Dr. W. B. Canfield asked if the doctor knew the statistics for the present year? He had been trying to get some sputum for experimental purposes for some time past, but could not find a single case anywhere in the city.

Dr. J. T. Smith replied that very few cases have been reported this year. Experience shows that after such an epidemic as we had last year the susceptible individuals are much reduced in number, consequently fewer cases occur.

Dr. I. E. Atkinson said that he had very little to say in reference to the subject in question, as Dr. Smith had pretty thoroughly discussed it already. As we become more familiar with the pathogenesis of pneumonia, we will doubtlessly conclude that more than one factor is to be found that will bring about the disease, just as we have a different cause for a diphtheritic necrosis, for example. The organism which has been described as causing pneumonia has been found in conditions where no pneumonia was present. There must be some yielding

powers of resistance where it takes hold, just as we see such conditions in malarial fevers, for example. In reference to the treatment, he is no opponent of bloodletting and thinks at times it could be used to advantage. If, however, pneumonia is a specific disease from our knowledge of specific diseases, can we cut it short? We see cases at times not passing beyond the stage of engorgement which do well without bloodletting and run their course in a remarkably short time. We are not justified in drawing conclusions from any mode of treatment from one or two cases. He does not believe in the pyretic treatment of the disease. If we watch carefully the condition of the heart and nervous system, and support them by the judicious administration of stimulants, we can save many of our patients.

Dr. J. G. Wiltshire said he had listened to Dr. Smith read his expressive paper on the cause and treatment of pneumonia with profit, and he wished to speak to a few points made by the doctor, more to supplement than otherwise.

In the discussion of the cause of pneumonia in the most recent literature, he has found a most overwhelming proof of its bacterial origin, bacteria of the pneumococcus kind, which finds its way to the lungs, and by preference the bronchioles and air cells of the lowes lobe of the left lung.

That it is microbic in origin and sometimes occurring in confined areas suggests the idea that it might be endemic in character.

Jaccoud, in discussing the parasitic origin of pneumonia, boldly disputes that pneumococci are its sole cause, but admits that there exists a causative relation between these microbes and cold.

In support of the idea set forth by Dr. Atkinson that the site of culture and occupancy of the pneumococci is not confined to the air passages, Dr. Wiltshire called the attention of the society to the fact that broncho-pneumonia has complicated cholera-infantum, the germs of the disease extending from the bowels to the lungs through the lymph channels.

The treatment of pneumonia calls for vigorous application of moist heat, in the form of hot cloths. Tr. of acconite can be given through the first stage, when a stimulating and supporting plan must be substituted. He likes carbonate of ammonia in the second and third stages; it does the two-fold work of aiding in the liquefaction and expectoration of the membranous deposit and keeping the heart up to its work, which he would neglect no more than he would neglect to reduce the temperature when it runs up too high. Attention to the temperature in pneumonia, as in typhoid fever, anticipates heart failure.

Before closing Dr. Wiltshire said he would mention the novel method of treatment introduced by a Frenchman who, considering the disease to be bacterial in origin, addressed his remedies to its materies-morbi by making intra-parenchymatous injections of antiseptics into the hepatized part of the lung. The antiseptics employed were iod. pot. benzodi sodium and the mercuric chloride, the mercuric salt giving the best results in the strength of 1–40,000.

Dr. W. B. Canfield said the organism of pneumonia has a shape that is common to many other organisms, and has been found in other localities about the body, but when it is cultivated it does not behave in the same way that the others do.

Dr. William Green spoke of a case of pneumonia that had been reported where the doctor was treating the patient in a badly ventilated room, and in order to get fresh air he passed a gum tube out of the window and had the patient breathe through it.

Dr. Whitfield Winsey said: The paper of Dr. Sternberg advocating the germ theory, the pneumococcus, as being the etiological factor in the production of pneumonia I have neither seen nor read, but if I understand Dr. Smith correctly, he, as well as some of the gentlemen who have discussed his paper, acknowledge that the same micrococci have been found in the joints and other parts of the body where there was no pneumonia present, and in the saliva of perfectly healthy persons.

This, upon general principles, as well as the so-called specific germs that have been considered pathognomonic of other diseases, but which with more thorough

investigation were found to be erroneous, would lead me in this connection to seriously doubt this micrococcus theory. On the other hand, I think there can be little doubt that cold and moisture are at least important factors in its causation. Thus it is found to prevail to the greatest extent in the months between November and May. A striking illustration of this was the large, in fact unprecedented, number of cases that followed the bad weather prevailing during the recent inauguration in Washington. It has been asserted that so many cases were never known to occur in that city at any one time before.

Another important factor, I think, is a predisposition. Thus a number of people placed under the same unfavorable conditions—one will develop a pneumonia, another a pleurisy, a third an attack of rheumatism. I had a personal experience of this kind some years ago. I got my feet cold and damp and had an attack of pneumonia as a consequence. One of my children with the same kind of exposure had an attack of rheumatism. I think, therefore, that if we bear in mind the predisposition, we shall find that the popular theory with regard to the causative influence of cold and dampness will be largely sustained.

Now, as to treatment, I do not think that the gentlemen who have criticized Dr. Hartshorne's paper published last year, contrasting the old and the new method of treatment of pneumonia, have done him justice.

Dr. H., whilst admitting that bloodletting was, under the old regime, a routine practice, did not advocate a return to that practice, but advocated what he called a mild anti-phlogistic treatment, which consists of bloodletting in suitable cases, early catharsis, and the giving of saline drugs, avoiding altogether or giving very sparingly depressants and opium and reserving stimulants and tonics for the later stages, when the debility is one of *exhaustion* and not of *oppression*, which is often present in the earlier stages of the disease, and for which stimulants are often freely given under the mistaken idea of its causation. I believe with Dr. Hartshorne that there has been no change in the type of the disease, and as auscultation and percussion were well understood and practised forty years ago, that the largely increased average mortality from this disease, as shown by statistics running well up into the thousands, must be sought for, not in a mistaken diagnosis, but principally in the changed methods of treatment, based largely upon a theory which the results of actual practice have not sustained.

Dr. Carey Gamble, Jr., said that he had seen two cases where bloodletting was practised with good results, and he desired to know how it was thought to act: whether the disease is aborted by it or not?

Dr. J. T. Smith said that the efficiency of bloodletting is not proven beyond the question of doubt, but in many cases brilliant results have followed its use. If used in the early stages of the disease it must act as an abortive measure, if it acts at all. If the matter of the germ theory is not proven, it is certainly a subject that should attract our attention, and the work reported by Dr. Osler, Dr. Sternberg, and others, shows that interesting facts have been obtained.

Dr. W. P. Chunn reported

A CASE OF OVARIOTOMY.

Dr. Randolph Winslow said that he thinks that the doctor over estimates the point when he emphasizes the time it takes to do the operation, but it is a very important matter in reference to the depression which we know comes on some times from chloroform and the stimulating effects of ether. He is not prepared to say that ether is the best anæsthetic to use in doing abdominal operations; he thinks it is not, for the kidneys are more apt to become affected and nausea more apt to follow its use. In reference to the sutures he thinks it is better to use two rows, for if suppuration takes place it cannot enter the abdominal cavity so readily.

Dr. B. B. Browne said that he agreed with Dr. Chunn in reference to the rapidity of the operation. The loss of blood, too, has something to do with the results. If the operation is done in

thirty minutes, it is much better than if it took a longer time. In reference to the closure of the peritoneum he has done it both ways and does not think it makes any difference as regards results, except that it takes more time to put in two rows of sutures, and he does not see that it has advantages. A flat sponge placed over the intestines prevents any oozing which might take place.

Dr. W. P. Chunn said that the attention to the details of any operation is a privilege that is granted to us all, and in reference to these details many points have to be considered. As it takes about twice as long to put in two rows of sutures as it does to do one, and as there seems to be no decided advantage to be gained, it has been about abandoned by the best men, both on this and the other side of the Atlantic. Attention to these details is what has shortened the operation, and the one who does the operation most quickly gets the best results.

Dr. B. B. Browne then exhibited a specimen of ovaries that he had just removed.

Patient, aged 30 years, who had a large fibroid tumor. There was considerable metrorrhagia Before she came under his care she had been treated with electricity, but with negative results. As she had lost a good deal of blood, he suggested removal of the ovaries, and she consented. In a case of that kind, electrolysis, hysterectomy and removal of the ovaries come up for consideration. Electricity in some cases will do no good. Removal of the ovaries is much safer than hysterectomy, and will do just as well. Hysterectomy is a bloody operation, and the percentage of mortality is higher. He operated on Tuesday one week ago, ligated close to the uterus, and removed both tubes and ovaries. No temperature followed. Good recovery.

W. J. Jones,
Rec. Secretary.

1238 Greenmount Ave.

Iron for Children.—Although the value of iron tonics for children is well recognized, yet the usual formulæ in which they are prescribed are most unpleasant and difficult to administer. The following are quoted from the *Revue Gén. de Clin. et. de Thér*, May 9, 1889, and will be found both pleasant to take and effective:

I. Effervescent ferruginated lemonade. The two mixtures are added to each other at the moment of drinking:

Mixture A.

℞.—Citrate of iron . . gr. ix.
Citric acid . . . gr. xij.
Water . . . . . f ʒ ij.—M.

Mixture B.

Bicarbonate of potash . gr. xij.
Syrup of lemon . . ℥ ijss.
Water . . . . . f ʒ ij.—M.

The above is sufficient for two doses.

II. Pills of pepsin and iron. Tanner prescribes two of the following pills for children three years of age:

℞.—Reduced iron . . . 19 grains.
Phosphate of zinc . . 9 "
Pepsin . . . . . 19 "
Glycerine . . . . q. s.

Make into twenty pills.

III. The following is also always easily administered and greatly liked by the little ones:

℞.—Hydrated peroxide of iron . ʒ j.
Confection of orange } āaʒv.—M.
Confection of opium }

Dose, from one-half to one coffee-spoonful, according to age. The above is highly recommended by Dr. Ellis.—*Med. News.*

Treatment of Alopecia.—

℞.—Tincture of jaborandi }
Tincture of cantharides } āā ʒ ijss.
Soap liniment
Tincture of pyrethrum }
Spirits of citron }
Tincture of tolu } . . āā ʒ jss.
Tincture of vanilla }

Apply every morning and evening with friction.—*Revue de Thér. Med.-Chir.*, May 1, 1889.—*Med. News.*

MARYLAND MEDICAL JOURNAL

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WILLIAM B. CANFIELD, A.M., M.D., Editor.

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As the subscription of the Maryland Medical Journal to a large number of its subscribers begins at this time, bills will be mailed to those subscribers, who are respectfully requested as far as possible to remit promptly.

BALTIMORE, JUNE 15, 1889.

Editorial.

THE JOHNSTOWN SUFFERERS. — The prompt response of the physicians of Baltimore and Maryland to their professional brothers in Johnstown has been highly appreciated. Dr. Hamer wrote that the blow had fallen particularly on the doctors, and that any sum sent would be gratefully acknowledged and carefully distributed. Dr. Hamer also wrote that his office was the only one left standing in Johnstown. Up to Tuesday last $169 had been subscribed, and the amount was sent, free of charge, by the B. & O. Express. A letter was also written to Dr. Hamer, and one to Dr. W. B. Lowman. On account of the interruption in travel, nothing has been heard from these two doctors named, but an answer is daily expected. The following is the total amount subscribed :

Dr. W. C. Van Bibber	$10.00
" John Dickson	10.00
" G. W. Miltenberger	10.00
" P. C. Williams	10.00
" Nathan R. Gorter	10.00
" Wm. Whitridge	10.00
Dr. Richard Gundry	10.00
" Theodore Cooke	5.00
Mr. W. R. Ashby	5.00
" Martin Laudenslager	5.00
Dr. William B. Canfield	5.00
" S. W. Seldner	5.00
" S. J. Ulman	5.00
" Christopher Johnston, Sr	5.00
" M. J. Gately	5.00
" E. P. Irons	5.00
" George B. Reynolds	5.00
Miss Martha J. Keirle	5.00
Dr. L. E. Dyer	2.50
Dr. E. Micheau	2.00
Dr. George Thomas	2.00
Anonymous	2.00
Anonymous	1.50
Anonymous	1.00
Miss S. Z.	1.00
Dr. S. T. Earle	1.00
Total acknowledged in last issue	$138.00
Dr. Wm. Osler	10.00
Anonymous	10.00
Dr. H. P. C. Wilson	5.00
Dr. Robert T. Wilson	5.00
Dr. M. M. Norris, Union Bridge	1.00
Amount sent June 11th	$169.00

Received since June 11th.

Dr. H. Salzer	10.00
Dr. T. C. Peebles, Lutherville	2.00
Total	$181.00

THE ELEVENTH CENSUS.—On page 111 of the last issue of the MARYLAND MEDICAL JOURNAL, attention is called to the fact that Dr. John S. Billings, Surgeon U. S. Army, has consented to take charge of the Report on the Mortality and Vital Statistics of the United States, as returned by the eleventh census.

Too much importance cannot be attached to the collection of these statistics, and as the government will probably give the members of the profession every facility to make returns with little trouble, it is hoped that all will make it a point to respond.

The Registers will be distributed about this time, and those not receiving them can obtain them by sending their names and addresses to the Census Office, and, with the Register, an official envelope which requires no stamp will be provided for their return to Washington. The Department agrees to keep such information imparted strictly confidential.

With the marked executive ability of Surgeon Billings, and the prompt co-operation of the physicians of the country, the profession may expect a more complete census than those in past years.

Obituary.

Dr. JAMES ETHELBERT MORGAN,

The death of Dr. James Ethelbert Morgan, which occurred in this city Sunday morning, June 2d, 1889, removes from Washington one of its oldest and most distinguished citizens.

Dr. Morgan was born in St. Mary's county, Maryland, September 25th, 1822, and received his collegiate education from St. John's College, Frederick, Md. In 1845 he graduated in medicine from the Columbia Medical College, D. C., settled in Washington, and during the past fourty-four years has been engaged in the active and successful practice of his profession. Coming to the city in its earlier days, he grew up with the place, becoming widely known, and gained the highest confidence and esteem of its oldest and best residents, many of whom have been his earnest and devoted friends.

Dr. Morgan was, at the time of his demise, Emeritus Professor of Materia Medica and Therapeutics in the Medical Department of Georgetown University, having at various times during a period of nearly thirty years filled the chairs of Physiology, Materia Medica and Therapeutics, or Medical Jurisprudence and Hygiene, in this institution. His lectures on Medical Jurisprudence and Hygiene were among the earliest delivered in the United States on these subjects and attracted general attention.

He contributed a number of articles upon medical topics to the literature of the day, among which may be mentioned one on "Paronychia, an Epidemic," Am. J. M. Sc. Phila. 1852 N. S. Vol. xxiii, 144. His "Defense of Medicine and of the Medical Profession," 8° Washington, 1884, pp. 16, delivered before the Medical Society of the District of Columbia, was a powerful and philosophic plea for the value of drugs in the curing of disease, concluding with the following language: "I believe all diseases are either curable or susceptible of palliation. Our senses demonstrate the truth of this proposition, our reason confirms it, and our instinct impels us to a practical application of it. I, therefore, gentlemen, in conclusion, reiterate that I have the strongest faith in the science of medicine, and that my confidence in it has increased with age. experience and observation, and farther, I believe it should be used without hesitation to the utmost extent of its curative powers."

He had been President of the Medical Association and of the Medical Society of the District of Columbia. He was Consultant in the Columbia Lying-in Hospital and in the Central Dispensary, and for many years was a member of the Judicial Council of the American Medical Association. Dr. Morgan was the last surviving officer of the Convention of 1870 for the decennial revision of the U. S. Pharmacopœia, and convened and organized the Convention of 1880.

Dr. Morgan, with Dr. Robert King Stone, was appointed to investigate the causes of the celebrated National Hotel disease, an endemic of historical importance which occurred in 1857, and which will be remembered by our older readers.

In the early days of the city Dr. Morgan served in the Board of Common Council and the Board of Aldermen, and some thirty years ago was attending physician to the Washington Asylum when that institution was in its infancy. He had charge during the late war of the large quartermasters' hospitals situated in Farragut Square, also of the Soldiers' Retreat, and was surgeon to the militia of the District about 1854. His fondness for the teaching of medicine attracted many students to him, twenty-two being the number of his office pupils in one year. He was for years a regent of the National University and was one of

the original Commissioners of Pharmacy of the District of Columbia, receiving his appointment when the Pharmacy bill passed Congress in 1848. This office he held ten years resigning, when he was satisfied that the pharmacy laws in which he was so much interested were finally established.

An earnest student of colonial history and a finished classical scholar, Dr. Morgan retained his proficiency in and fondness for these studies to the last.

He leaves a widow, the daughter of Dudley Digges, of Prince George's Co., Md., and six children, three daughters, one of them the wife of Emory Speer, U. S. Judge for the Southern District of Georgia, and three sons, two of whom, Dr. Ethelbert Carroll Morgan, the well known Laryngologist, and Dr. J. Dudley Morgan, are practising physicians in the city of Washington. The third son, Cecil, is clerk of the U. S. Court at Macon, Ga.

Personally Dr. Morgan was of commanding figure, fine address and great geniality of disposition, a devoted physician, a courtly gentleman, and a man whose sterling qualities were recognized by all. "M."

WASHINGTON, D. C., June 4th, 1889.

Miscellany.

LET REVIEWERS BEWARE.—The *Lancet* relates the following:

In this action for libel, the plaintiff, Dr. Herbert Tibbits, F. R. C. P. Edin., was a duly registered medical practitioner, and the author of a book, published by Messrs. J. & A. Churchill, entitled "Massage and Allied Methods of Treatment." The claim stated that the defendants were publishers of a periodical called "Nature," and in the number of November 22d, 1888, falsely and maliciously printed, concerning the plaintiff in his profession as a medical man, in the form of a review of his book, a libel to the effect that the plaintiff, whilst professing to teach massage, had not mastered the first principles of the treatment · that it was seldom a medical book of such inferior quality had been issued from the press; and that the fact that the book had found purchasers was a striking proof how a catching title and an attractive exterior could still mislead the public. During the hearing of the case, which lasted two days, Mr. Wm. Adams, F. R. C. S., Dr. Herschell, Mrs. Honyman Brown, hospital matron, and Mr. Troad, electrician, gave evidence for the plaintiff; whilst Dr. Eccles, Mr. John Thistle, hospital apparatus maker, Mr. J. F. Little, M. B. (the writer of the review in question), and Dr. Lauder Brunton were called on behalf of the defence. Mr. Justice Denman, in summing up, pointed out that when a man publishes a book he challenges praise, and must abide by it if the criticism of the book be adverse. The jury gave a verdict for the plaintiff, with damages one farthing, the learned judge deciding that each side was to pay its own costs.

The *Medical Record* adds: "The surest way to prevent similar mistakes in future is to have authors write their own reviews."

UNDERGROUND WATER AND BACTERIA.—Underground water and bacteria were the theme of a recent lecture delivered by Dr. C. Fraenkel, assistant to the famous bacteriologist, Dr. Robert Koch, in the Hygienic Institute at Berlin. The gist of the lecture was that the underground water of Berlin is free from bacteria, that this surprising fact is due to the great filtering power of the ground, and that consequently the water drawn from the artesian wells is perfectly wholesome.—*Lancet.*

NARROW CHESTS.—The Prussian army surgeons have been ordered to measure the chests of recruits, especially of narrow-chested ones, every four weeks. All are to be regarded as narrow-chested the circumference of whose chests is less than half the length of their bodies. Narrow-chested men whose chests are not widened by drill are to be regarded as predisposed to tuberculosis, and to be discharged as soon as possible, that they may not infect healthy soldiers.—*Lancet.*

Artificial Carlsbad Salts. — Dr. Ziemssen, in the *Revue de Thér. Méd.-Chir.*, May 15, 1889, gives the following formula for artificial Carlsbad salts:

℞.—Sulphate of sodium . 40 parts.
Carbonate of sodium 6 "
Chloride of sodium . 1 part.—M.

Dissolve in hot water, evaporate, and pulverize the residue. Dose, half teaspoonful in hot water.—*Med. News.*

Medical Items.

The Woman's Hospital closes to-day for the summer.

Professor Breisky, the well-known obstetrician, of Vienna, is dead.

Dr. James B. Hunter, the well-known gynecologist. died this week in New York.

Dr. Oscar J. Coskery, of the College of Physicians and Surgeons, is very ill, and has been removed to St. Joseph's Hospital.

The Newport City Council has appropriated $300 for the entertainment of the American Medical Association.

Dr. Robert L. Randolph has been appointed to the Eye and Ear Department in the Johns Hopkins Dispensary.

Mr. Hiram Hitchcock has given to Dartmouth College a hospital, which is to be attached to the medical school of that institution.

The Croonian Lecture at the Royal Society was delivered on May 25 by Dr. Roux, and not M. Pasteur, as announced. His subject was "Preventive Inoculation."

The Journal of the American Medical Association deserves great credit for the enormous extra edition of 75,000, containing among other things a full programme of the next annual meeting at Newport, with a short guide to that beautiful resort, as well as an announcement of all the medical schools of the United States.

Dr. William C. Jarvis, of New York, has moved to 142 Madison Avenue, between 31st and 32d streets, where his consultation hours are 9 till 1, or by special appointment.

Dr. J. M. Hundley has been appointed chief of the Medical Clinic at the University Dispensary, in place of Dr. F. M. Latham, who was obliged to resign on account of other work.

Creolin in Gynecology.—Dr. Jules Chéron, in the *Gazette de Gynecologie*, May 1, 1889, contributes further valuable matter to the creolin question. He has used it extensively in female blenorrhagia with unquestionable success. He has also used it as a disinfectant in cases of purulent endometritis with excellent results. Its effects were non-irritant, but it produced a healthy appearance of the parts. It most admirably takes the place of iodoform.

At the annual meeting of the faculty and trustees of the Woman's Medical College of Baltimore, held the first of May, the clause allowing "one year's study under a preceptor" to stand for one course of lectures was abolished, so that this institution now places itself squarely among the schools having a three-year compulsory course. The sessions are seven months long, and the instruction is graded with written and oral examinations at the end of each year. There has been a preliminary examination (in English only) since 1883. An average of 70 out of 100 is required for graduation.

The American Public Health Association will hold its Seventeenth Annual Meeting at Brooklyn, N. Y., on October 22, 23, 24 and 25, 1889. The Executive Committee have selected the following topics for consideration at said meeting:

1. The Causes and Prevention of Infant Mortality.
2. Railway Sanitation.
   (a) Heating and ventilation of railway passenger coaches.
   (b) Water-supply. water closets, &c.
   (c) Carrying passengers with communicable diseases.
3. Steamship Sanitation.
4. Methods of Scientific Cooking.
5. Yellow Fever.
   (a) The unprotected avenues through which yellow fever is liable to be brought into the United States.
   (b) The sanitary requirements necessary to render a town or city proof against an epidemic of yellow fever.
   (c) The course to be taken by local health authorities upon the outbreak of yellow fever.
6. The Prevention and Restriction of Tuberculosis in Man.
7. Methods of Prevention of Diphtheria, with Results of such Methods.
8. How far should Health Authorities be permitted to apply known preventive Measures for the Control of Diphtheria.
9. Compulsory Vaccination.
10. Sanitation of Asylums, Prisons, Jails, and other Eleemosynary Institutions.

Papers upon miscellaneous sanitary subjects not included in the above list will be received by the Executive Committee, subject to the requirements of the By-Laws.

The Secretary is Dr. Irving A. Watson, of Concord, N. H., to whom all communications should be addressed.

Original Articles

ON A PAINLESS AND EFFICIENT METHOD OF EXTIRPATING VASCULAR AND PIGMENTED NÆVI.*

BY GEORGE H. ROHÉ, M. D.,

Professor of Dermatology and Hygiene in the College of Physicians and Surgeons, Baltimore, Md.

Physicians and the laity alike are in the habit of regarding birth-marks, whether of the vascular or pigmentary variety, as merely blemishes; but upon reflection nearly every physician with considerable experience will recollect cases in which a nævus became the source of more or less danger to the bearer of the disfigurement. A vascular nævus, especially of the cavernous variety may, if injured, cause dangerous hemorrhage, while on the other hand the pigmented mark is prone to undergo malignant degeneration.

The vascular nævi or angiomata are very frequent. According to the observations of Depaul, quoted by Councilman, (Woods' Reference Hand-book, vol. I, p. 230), one-third of all the children borne in the clinic of the Paris Faculty of Medicine have vascular birth-marks. The flat, or simple vascular nævus consists of a mass of enlarged, tortuous, frequently varicose, capillaries, with a delicate connective tissue framework. Sometimes this connective tissue is of the myxomatous type and when pigment is found in this myxomatous tissue, as sometimes occurs. sarcomatous degeneration is liable to follow.

Cavernous angioma consists of dilated and tortuous veins with a connective tissue framework resembling erectile tissue. It is not so frequently found on the skin as the flat variety, but is not rarely seen on the lips. Dangerous and even fatal hemorrhage may take place from one of these growths, if injured. Pigmented nævi may be flat or elevated above the normal level of the skin. In color they vary from a dirty yellow to a deep brown or black. They may be smooth or irregular and the pigmented surface is often thickly covered with hairs. Fibroid or lipomatous growths may also be found in the pigmented patch.

The face is generally supposed to be the site of predilection for pigmented moles, but I think this is an error. They are more frequently seen upon the face simply because this is the portion of the body always exposed to observation. Nævi are by no means rare upon the trunk or extremities..

A pigmented mole is under ordinary circumstances an innocent growth, but in exceptional cases it may undergo carcinomatous or sarcomatous degeneration. This is particularly liable to occur when the growths are subjected to persistent irritation, for example when situated on a portion of the surface where they are exposed to friction with the clothing, or when frequently nicked with the razor in shaving, or where inappropriate efforts at removal by cauterization are made.

Benzler, Volkmann, Sherwell and Schwimmer have reported a number of cases where epitheliomata or sarcomata have developed in pigmentary nævi. I have notes of several cases in which the development of the malignant growth could readily be traced to a persistently irritated pigmented birth-mark. One of these was an elderly maiden lady who had attempted the destruction of a mole upon the forehead by the application of nitrate of silver. The persistent irritation so produced resulted in carcinomatous degeneration of the growth. In another case the mole, which was situated on the cheek, was frequently nicked by the razor in shaving. The frequently repeated irritation finally resulted in an epitheliomatous ulcer whose progress was at last checked only by the most vigorous cauterization. Another case was that of a pigmented mole situated near the tip of the nose in a woman of 93 years. Following some slight irritation the growth began enlarging and in the course of a few months had acquired the size of a hen's egg. This tumor was attached by a pedicle about half an inch in diameter and hung down over the end of the nose and

*Read before the Medical and Chirurgical Faculty of Maryland at its 91st Annual Session, April 25, 1889.

mouth, giving the patient a very grotesque appearance. The surface was ulcerated exuding a very offensive pus, and frequent hemorrhages took place from the tumor. The growth was removed with the thermo-cautery on May 28th. 1887, and the patient made a good recovery. She died on Sept. 28, 1888, sixteen months after the operation, with no return of the growth. A microscopical examination of the removed tumor showed it to be an epithelioma.

Case 4 was a white man 58 years of age of German birth who had a mole on the back of his neck where the collar button pressed against the skin. Two months before I saw him the mole had been irritated, and began enlarging. It grew rapidly and at the expiration of the time mentioned had reached the size of an English walnut. The tumor was indurated and presented all the physical characteristics of a cancerous growth. He declined an operation and I have not learned the subsequent history of the case.

Case 5 was the exact counterpart of the preceding one in situation and cause and curiously, was referred to me by the same physician, Dr. E. Jones Williams of Baltimore. The growth was as large as a medium sized hazel nut and was not ulcerated. It was removed by electrolysis 3 years ago, and no return of the growth has occurred.

Case 6 was that of a prominent druggist of Baltimore, who had since birth a flat black mole about half an inch in diameter just behind the lobe of the left ear. As people who noticed the blemish sometimes called his attention to it, he became annoyed and tried to destroy it with caustics, using at various times nitrate of silver, chromic acid and other cauterizing agents. The result was simply a chronic irritation and rapid enlargement of the growth. When he consulted me (in November 1887), there was a tumor about three-fourths of an inch in diameter with an eroded surface. Cocaine (10 per cent. solution) was injected and the growth removed by electrolysis at one sitting. Three weeks later a smooth pliable cicatrix was all that remained of the growth. Microscopic examination by two experienced pathologists gave rise to a difference of opinion as to the nature of the growth, one declaring it to be an epithelioma and the other a pigment-sarcoma. I can only reconcile these conflicting opinions by the supposition that the growth was of a mixed character, partaking more of the epitheliomatous tissue at the surface, and of the sarcomatous in its deeper layers. One of the cervical glands about an inch and a half below the tumor was enlarged to the size of a pigeon's egg. Percutaneous applications of the galvanic current reduced this somewhat, but the applications were irregularly made, and after a few months, the gland gradually increased in size. The patient resisted my constant appeals for a bloody extirpation of this gland. He died of apoplexy eleven months after the primary growth was removed. The growth had not recurred *in loco*.

These cases show clearly enough that pigmented moles especially if subjected to prolonged irritation are sources of grave dangers to their possessors, and for this reason should be removed if practicable, but even aside from the question of danger, I believe these growths should be removed if they constitute a disfigurement to any considerable degree. The possession of physical beauty is a desirable object in itself and persons, especially women, should not be blamed if they desire to enhance their personal charms by any proper means in their power. The methods of removing birth-marks heretofore employed are all more or less objectionable. Excision with the knife, followed by a plastic operation if the growth is large, is objected to by many, and even where accepted, often fails to give a satisfactory result. Mild caustics are inefficient, and in many cases dangerous, as shown by the histories of the cases above related, while the stronger caustics, such as hydrate of potassa, nitric and sulphuric acids, leave a suppurating surface which heals with a scar which may be as disfiguring as the original blemish. The injection of coagulating fluids into the vascular nævi is not free from danger, and in the flat varieties fails to accomplish any good. The gal-

vano-cautery gives better results than any of the methods mentioned, but it also leaves much to be desired.

Within a few years past, however, a method of treatment has been suggested which upon trial has proven satisfactory in all varieties and sizes of nævi from the flat vascular or "port wine stain," to the large, irregular, hairy pigmented moles which are popularly said to resemble various fruits, animals and other objects supposed to have some etiological relation to their origin.

Electrolysis may be briefly defined as a chemical disruption of a compound under the influence of the galvanic current. Time is lacking to enter here more fully into the discussion of the ascertained phenomena of electrolysis. Suffice it to say that if a current of sufficient strength is conducted into a mass of organic tissue: a morbid growth, for example, certain changes take place which are appreciable both at the time of the operation as well as subsequently. Should the electrodes consist of two needles plunged into a vascular nævus the changes would be as follows:

Around the needle constituting the positive electrode there would be formed a firm clot as soon as the circuit was closed. This clot would become firmer and extend in area with the duration of the current. On withdrawing the needle the clot would be found firmly adhering to it, and unless the needle were of gold or platinum it would be found black and corroded. This corrosion results from the acid compounds which are liberated at the positive electrode.

Around the needle connected with the negative pole of the battery, the changes would be different. The red color first pales out and the tissues immediately around the needle become puffed up and softened. If pressed with the finger, a fine crepitation is noticed which is due to permeation of the tissues by gas (hydrogen) which is liberated at the negative electrode. The tissues are decomposed and softened, and a soft coagulum is formed.

The needle is not attacked by the (alkaline) compounds which are set free at this point in the circuit.

If a moderate current (say 2 to 5 milliampéres) is passed through a vascular nævus a limited amount of destruction of tissue is produced, and after a week or two, the vessels in the immediate vicinity of the punctures are seen to be obliterated, and the skin is somewhat lighter in color than it was before the operation. In a few weeks more the redness at the point of puncture will be found to have entirely disappeared and a white punctate scar will have resulted. It is of course easy to see that these points may be multiplied to any desirable degree, until finally the entire vascular field has been gone over and a white field remains. It must not be supposed that every single vessel needs to be thus obliterated by the electrolytic puncture, for the contraction in the tissues immediately surrounding the puncture obliterates the vessel in a relatively large area. In practice it will be found more convenient to use only the needle constituting the negative electrode for making the puncture, using the ordinary sponge rheophore for the positive which may be placed on any convenient point, the palm of the hand for example.

In treating a case of extensive nævus, the entire field may be gone over once every month or two until finally the enlarged vessels are all obliterated and the normal color of the skin or something closely approaching it has been re-established. The photograph which I now pass around shows a case treated in this way. This boy was first brought to me from West Virginia, on April 5th, 1887, when he was four months old. Unfortunately I failed to get a good photograph of him at that time, but I have traced out on the one in your hands the original extent of the mark. This was bright red in color and slightly elevated above the skin. In three sittings at intervals of a week the entire surface was covered by the operations and he was sent home to await the result. On November 24th, of the same year he returned very much improved. Only one sitting was required to puncture all the remaining areas of redness. Other operations were performed on June 2nd, 1888, October 31st, 1888, and finally in February, 1889.

The result at the present time is shown in the small photograph. It is probable that some small vessels and points of redness will require another operation.

The third photograph shows a case of cavernous nævus on the right side of the forehead about the fourth of an inch in diameter and elevated an eighth of an inch above the surrounding skin. The color was deep red, and when the child cried or became excited, the little tumor became turgid with blood. Several times the child had fallen and struck the tumor which bled freely. The child, a little girl, was three months old when I first saw her, In two sittings, using a current of 4 ma gradually increasing to 8 ma and then decreasing to 4 again, the growth was completely destroyed. The interval between the two sittings was six weeks. Photograph No 4, shows the appearance of the patient six months after the last operation.

The removal of pigmented moles requires a little more attention to certain details than that of vascular marks. It is known that the cutaneous pigment is produced in the deeper portion of the epithelial layer and that it is especially deposited along the course of the fine blood-vessels. If the layer of cells in or by which the pigment is produced is not entirely removed the mark will return after a time; while if the destruction is carried too deeply the connective tissue layer suffers, and a scar is the result. Both of these should, and with care and skill, can be avoided. The following case shows this, I think, to the satisfaction of any one who cares to examine these two photographs (No. 5 and 6). You will doubtless acknowledge that by no other known method can the same results be obtained.

Miss —— white, Am. age 23, has a brown pigmented mole on the right cheek over the prominence of the malar bone. The mark is slightly elevated above the skin and is thickly covered with coarse black hairs. At the upper and outer portion of the spot is a nipple-like prominence. When patient was an infant unsuccessful efforts had made to remove the growth. She does not know what agents were used but thinks some of the potential caustics were tried. The spot is oval $1\frac{5}{8}$ inch in its largest and $1\frac{1}{8}$ inch in its shortest diameter. The upper border of the mole is half an inch below the border of the eye-lid. A contracted scar in this situation might cause ectropion. The first sitting was had on July 6th, 1888. As considerable pain was experienced by the patient with a current of $\frac{1}{2}$ to 1 ma the surface to be operated upon was anæsthetized by means of carbolic acid. Cocaine was tried but found inefficient. Under the carbolic acid anæsthesia 3 to 4 ma could be used.

After 12 sittings the first cycle was completed. After removal of the crust, in about 4 weeks, the skin was found to have become lighter in color. A second, third and fourth series of sittings finally resulted in a complete removal of the pigmentation and of the hairs. The result is exhibited in the photograph which was taken about four weeks ago, about three months after the last operation. I am sorry I cannot exhibit the patient in person, but the photograph is a very excellent one, and shows absolutely no trace of the former mark or of the operation by which it was removed.

A very important requirement in the electrolysis of nævi is patience. One is often tempted to use a stronger current than advisable, or to destroy more deeply in order to finish the work more quickly. I would most earnestly urge upon those who propose to make trial of the method to resist this temptation. The removal of a birth-mark which is followed by a conspicuous scar as the result of the operation cannot be looked upon as a cosmetic success. Not much is gained by the substitution of one disfigurement for another, and an operation which is undertaken solely for its cosmetic value should be judged by this standard. If it fails in removing the deformity, it is an entire failure and should be so regarded. I know of no method of removing disfiguring nævi which answers all the demands that can be made upon it so thoroughly as that which I have attempted to bring to your attention.

611 N. Calvert St.

ANEURISM OF THE ABDOMINAL AORTA, BURSTING INTO PLEURAL CAVITY. A MASS OF TISSUE PLUGS THE OPENING. PATIENT RALLIES, AND DIES TWO HOURS LATER. REMARKS ON THE CASE*.

BY A. K. BOND, M. D., OF BALTIMORE.

The patient, a colored day-laborer, aet. 35, said to be of temperate habits, was admitted into hospital for supposed chronic rheumatism. He was not confined to bed, but walked about the ward with a cane, stooping in walking, because he was unable to straighten his left leg at the knee. He had pain in the course of the left sciatic nerve, and for a few days in the left inguinal region. There was constant pain on the right side in the lumbar and gluteal regions. He complained at one time of coldness in the lower limbs. His pains were worse in cloudy weather, and often more severe at night. The attending physician, without careful examination, diagnosed rheumatism, and treated him with liniment, and with mercury and iodide of potassium, with considerable relief to the pains. On the morning of the fourth day after this diagnosis, the patient was bright and cheerful, but did not rise and dress as usual. At 12.30 o'clock, he was helped to the commode, and, just as he was sitting down upon it, he fell over upon the floor, unconscious. He was lifted to the bed and recovered consciousness. Being summoned immediately, I found him greatly agitated, with rapid respiration, tumultuous heart, and scarcely perceptible pulse. He kept his hand over his heart, and said it pained him very much. I gave him a small dose of carbonate of ammonia and whisky, and he soon seemed so much better that I left him, ordering a turpentine stupe over the region of the heart, and directing the attendant to call me if he became worse. About two hours later the patient died, before I could be summoned.

Post-Mortem Examination.— Opening the thorax I found the left pleural cavity filled with blood and dark blood-clots, the left lung being contracted to a very small bulk. Through a round opening, 1½ inches in diameter, in the posterior left quarter of the diaphragm projected a rough mass of tissue, which plugged up the opening. On section, the lungs were healthy. The heart and pericardium were normal. The peritoneal cavity was free from blood. The intestines lay more in the right than in the left half of the abdominal cavity, the fossa to the right of the spinal column being filled by a retroperitoneal mass, which pushed forward the kidney, and appeared to be continuous with the mass which projected through the diaphragm. The left kidney was normal, the spleen somewhat anæmic, the bowels normal. There was no sign of disease in the parts to the right of the spinal column. Cutting off the aorta close to the diaphragm, I turned it downward, and found that, at the upper margin of the eleventh dorsal vertebra, it opened to the left into a large aneurismal sac which formed the mass before mentioned. The aorta left the sac again about two inches below the cœliac axis. The cavity of the aneurism was filled with blood clots and granular debris. There were masses of laminated deposit adhering to its walls. The 11th and 12th vertebrae were on their left sides bare and much eroded. The spinal canal was not open, but its bony wall was very much thinned from pressure of the aneurism. The 11th and 12th ribs on the left side were eaten quite through at 1½ inches from their articulation with the vertebrae. The wall of the aneurism was of varying thickness, according to the nature of the surrounding structures. The aneurism extended upward along the left psoas muscle to the diaphragm, through which it opened into the left pleural cavity; and downward along the psoas muscle and to the outer side of the great blood-vessels as far as Poupart's ligament. At the upper part the cavity of the sac was large enough to admit the hand; at the

*Read before the Medical and Chirurgical Faculty, of Md., at its 91st Annual Meeting, April 26th, 1889

lower part it became gradually smaller. The mass which filled the hole in the diaphragm was a part of the wall of the aneurism. I did not observe any thinning of the diaphragm at the point of rupture, though, doubtless, it had become thin from pressure of the blood.

Remarks. — The literature bearing upon aneurism of the abdominal aorta is so extensive, and the course of the disease is so fully described in the leading text-books, that I shall attempt only to touch upon a few isolated points of interest presented by the case before us.

Although in this case a careful examination would probably have led to an immediate diagnosis of the disease, yet it is well known that in many instances the detection of aneurisms of the abdominal aorta is extremely difficult, even when they have attained to a considerable size.

Bartholow (Practice of Medicine, 1881,) says: "A large tumor (aneurism of the abdominal aorta) may form posteriorly and produce extensive erosions of the vertebrae without being ascertained by the most careful palpation." "Aneurism of the abdominal aorta high up between the crura of the diaphragm or growing toward the lumbar region may produce no symptoms which can indicate the nature of the disease." According to Sibson's statistics, quoted by Bartholow, 77 per cent. of aneurisms of the abdominal aorta terminate by rupture. The rule which teaches that ruptures into mucous cavities occur through small apertures, and those into serous cavities through large apertures, holds good of ruptures into the pleural cavity, the opening being generally a long tear. While ruptures into the pericardium cause immediate death, even when the opening is extremely small, (see a case in the Trans. of Patholog. Soc. of London, where, in the body of a man who dropped dead in the street, a *pin-sized* aperture was found between the aorta and the pericardium), ruptures into the pleural cavity seem to produce death with a rapidity in some degree proportional to the size of the opening and the rapidity with which the blood escapes.

The following cases illustrate well the foregoing statements: A man 33 years of age (Trans. London Path. Soc., Vol. 28, 1877,) with history of rheumatism, but not of syphilis, had suffered for two years with radiating pains in the back and left side and numbness of the left leg. At the time of examination he had no symptoms of note, save pain down the left leg. There was no rigidity of the psoas muscle nor difficulty in walking. The presence of a bruit led to the diagnosis of aneurism. A few days later, while sitting up in bed, he suddenly died. At the post-mortem a large aneurysmal sac was found underneath the pillars of the diaphragm. The bodies of the 11th and 12th vertebrae were eroded, the latter deeply. The sac had burst into the left pleural cavity, which was nearly full of blood.

In another case, (Trans. Path. Soc. London, Vol. 37, 1886,) a female patient, aet. 35, had suffered from pain in the back and epigastrium for six months, and had been treated for rheumatism. In hospital, aneurism was diagnosed, and under proper treatment the patient became much better. One morning she was suddenly seized with acute pain in the right hypochondrium, and went into collapse. Twelve hours later she died. Upon examination after death, a large sacculated aneurism of the aorta was found, which involved the cœliac axis. The last dorsal and the upper three lumbar vertebrae were much eroded. There was a small opening, through the diaphragm, from the aneurysmal sac into the right pleural cavity.

What was the immediate cause of death in the case which I have related? The bursting of the aneurism was accompanied by shock, but from this the patient rallied.

The immediate cause of death was, doubtless, the hæmorrhage and the collapse of the lung. I suppose that the plugging of the opening in the diaphragm occurred almost immediately after the rupture, and, by retarding the flow of blood into the pleural cavity, delayed for a time the fatal issue. It is not probable that serious compression and displacement of the heart by the inflowing blood occurred, for in order to do this several

pints of fluid must be effused into the pleural cavity, and death probably took place before this amount of blood escaped. Some of the symptoms exhibited by my patient, such as the painful tumultuous action of the heart, may have been due to the sudden displacement of the heart toward the right side which would occur when, the pleural cavity being opened, the traction exerted by the right lung was no longer counteracted by that of the left lung.

311 West Biddle Street.

REPORT OF TWO CASES OF STRANGULATED INGUINAL HERNIA.*

BY R. T. HOLDEN, M. D., OF WASHINGTON, D. C.

August 19, 1888, I was called to see M. O. female, white, aged 70 years, and found her suffering great pain in the abdominal region, vomiting profusely a brownish foul smelling fluid, and bearing all the appearances of rapidly approaching exhaustion.

The relatives of the patient stated that she had been ill for 36 hours, and although purgatives had been administered, no action of the bowels had followed.

The lady,on being questioned,acknowledged that she had been affected with a peculiar swelling in the right groin for two years; that it would appear after rising in the morning, annoy and pain her throughout the day, and disappear after retiring to bed.

Occasionally the swelling would not subside at night, and then it would cause increased pain and obstinate constipation.

During all this time the old lady, either from ignorance of the character of the affection, or being possessed of a false idea of modesty, failed to make known to her husband and children the cause of her discomfort, until the symptoms assumed such an alarming aspect as to force from her the above admission.

Examination of the abdomen revealed a tumor about the size of a walnut, situated in the right iliac region and above Pouparts' region.

The case was diagnosed strangulated inguinal hernia, and attempts were made to reduce the same by taxis, but so much pain was produced thereby that I was forced to discontinue my manipulation without any result.

The patient and her relatives were informed of the gravity of the situation, the importance of using an anesthetic, and perhaps the necessity of operating for the relief of the strangulation.

Strong objection was made to any such procedure; it was argued by them that the age and feeble condition of the lady would not allow of sufficient hope of success to warrant an operation, and we were urged to permit the patient to die in peace rather to hasten her end by such cruel and violent measures.

In this dilemma, I requested a consultation, in the hope that the opinion of another physician would lend such weight to mine as to reconcile the family to the proposed treatment, and awaken them to the fact that something could and ought to be done without further loss of time.

Dr. Crook saw the patient with me, confirmed the diagnosis, and endorsed the proposition of immediate operation.

After some considerable discussion and loss of time, we were about to leave the house without having succeeded in gaining consent, when the proposition was made that if we would assume all the responsibility in the case, and positively assure them that no ill effects would follow the administration of the anesthetic or the use of the knife, they would consent to our proceeding.

Anxious to save life, and feeling that the chances were largely in our favor, we accepted the proposition and placed the patient under ether.

When anesthesia was produced, we used taxis for four or five minutes, but not being able to reduce the tumor it was determined to use the knife.

The integument over the hernia was pinched up and transfixed, and the incision made from within outward, when by carefully using the grooved director

*Read before the Clinico-Pathological Society, of Washington, D. C., April 16th, 1889.

in incising the tissues, the hernial sac was disclosed.

This being punctured, a slight discharge of a muddy colored fluid took place, the incision was made large enough to admit the end of the finger, and the sac laid open to its full length, when the incarcerated intestine was found.

Some time was consumed in liberating the hernia from the stricture, and although it was of a dark grayish color we deemed it still healthy and returned it to the abdomen.

The hernial sac was transfixed with catgut sutures, cut off and stitched to the edges of the internal ring, which was closed tightly.

Silk sutures were used in stitching the skin and other tissues over the wound.

No hemorrhage occurred during the operation. Iodoform and sublimate gauze dressing were applied, and not disturbed for three days. At this time symptoms of peritonitis had developed, the abdomen was tympanitic and very tender, and the outlook at this stage was very unpromising.

When the dressing was removed, a quantity of fetid pus escaped from the wound, the sutures were removed, and the cavity was well washed out with a carbolized solution 1–40, and the iodoform and sublimate gauze again applied.

By careful treatment, strict diet and close attention to the cleanliness of the wound, the unfavorable symptoms disappeared and complete recovery followed.

There was a healthy action of the bowels on the sixth day after the operation, and the external wound healed by granulation at the end of the second week.

Case 2. On the evening of May 31st, 1886, I was called to see W. H., male, colored, aged 20 years, laborer by occupation.

The young man was lying on the floor of his bedroom writhing with pain.

He informed me that his illness began with a severe pain and tenesmus of the lower bowel, and in a few minutes so helpless was he that some companions had to bring him home.

The bowels were constipated, and suspecting some obstruction, I used a large quantity of hot water as an injection, and administered ¼ grain morphia hypodermatically.

The abdomen was examined very carefully in the hope of locating the supposed obstruction, or ascertaining the cause of the sudden seizure, but nothing was detected.

As the morphia had relieved the pain, I left the patient apparently comfortable for the night, but on visiting him in the morning it was found that the abdomen was very tender, and the pain and efforts to evacuate the bowels without success still continued.

The man had an extremely anxious countenance, and seemed to dread the outcome of his illness; the pulse was weak and rapid, temperature normal, skin cold and clammy.

I again made a careful examination of the abdomen, but could see nothing that would indicate a hernia or bowel obstruction.

Ten grains of calomel well triturated with sugar were ordered, and I used about a gallon of hot water by injection into the bowels, using the Wales flexible tube to carry the water as far into the intestines as possible.

In the afternoon, Dr. Crook saw the patient with me; at this time the calomel had not acted, but vomiting had begun, and large quantities of bilious looking fluid were being discharged from the stomach, the abdomen was more tender, and pain was hourly growing worse and producing exhaustion.

We explained to the patient the necessity of giving him an anesthetic and making an exploratory incision into the abdomen in order that we might diagnose the cause of his suffering, and endeavor to afford some relief.

He was perfectly willing to submit to anything that would promise relief from the excruciating pain, and we went away to procure the anesthetic and instruments. Upon our return we found the house filled by numerous relatives and friends of the sick man, all protesting aloud that the doctors should not cut this man, and even threatening to resist by force any such movement.

Reasoning was of no avail, argument

was useless, and we actually were forced out of the house into an excited mob of colored people, and were glad to get away.

During all this time the poor sufferer pleaded for us to relieve him, and did what he could to influence the ignorant crowd not to interfere with the physicians, but we could not help him, and I shall not soon forget the look of anguish and despair pictured upon his face when seeing us forced from the room he felt his only chance for life had vanished.

The poor fellow died the next day.

A post-mortem was obtained by refusing to give a certificate of death until the cause should be discovered.

There were present at the post-mortem Doctors Crook, Hazen, Leach and myself.

Before opening the abdomen it was examined very carefully by all of the gentlemen present, and nothing was seen that might suggest a hernia.

The opinion was generally expressed that the case was one of intussusception of the bowels, and there was genuine surprise to find a strangulated hernia instead. A knuckle of small intestine was incarcerated in the internal inguinal ring just enough to cause obstruction, and not sufficient to give any external sign of such an accident.

So slight was the portion of the intestine strangulated that it seemed a marvel that the repeated examinations of the abdomen and the injections into the bowels did not cause displacement and reduction of the trouble.

The hernia was black and evidently necrosed ; there was no other sign of obstruction or intussusception found.

Remarks.—There is little out of the common order to be said of these two cases.

I have felt that in urging the operation in the case of the old lady, against the wishes of all concerned, we made a mistake, and in finally consenting to assume the responsibility of all accidents and bad results, too much was undertaken.

No man should allow himself to forget the risk to his professional reputation engendered by such a course.

The alluring prospect of a successful operation should not overshadow the dismal consequences of a probable bad result.

When the case was fully explained to the people, and the proposed means of relief rejected, the duty of the medical man was done.

That the operation was successful does not alter the case, as we promised what was beyond our knowledge and skill when we gave positive assurance that death would not result from the anesthetic or the operation.

Anxiety to save the life of a human being when we thought it so possible can alone justify such a hazardous undertaking.

In the second case the diagnosis was not made until after death, but I have no doubt that the man could have been relieved if an operation for the purpose of ascertaining the character of the trouble could have been performed.

The patient was willing to place his life in the hands of the physician, but the interference of ignorant and ill-advised friends and relatives caused the loss of a life that might have been preserved.

The fact that it was impossible for myself and the other physicians to not only locate, but even diagnose, the character of the obstruction was rather humiliating, but at the same time it was an interesting fact to me to discover that a hernia so slight as this could cause fatal results, and still be so disguised that no abnormal appearance presented itself to the eye and touch.

It was the first case of the kind that I had ever seen, and I hope this imperfect account of it will call to the mind of some of the members a similar one that met with better consideration at the hands of the diagnostician.

Correction.—In Dr. Robert Hoffman's article, on page 132 of last issue, for 6 to 18 drachms and 6 to 9 drachms, read 6 to 18 ounces and 6 to 9 ounces.

REMARKS ON A CASE OF OVARIOTOMY.

BY WM. PAWSON CHUNN, M. D.

Chief of Clinic for Diseases of Women, University of Maryland; Assistant Surgeon to Woman's Hospital, Baltimore.

Occasionally the simplest cases present some suggestion worthy of consideration. A number of such suggestions having been noted and advantageously acted upon, a rule is finally formed. The sifting and formulation of such rules gradually results in a system, and so the system of abdominal surgery as we recognize it to-day has been eventually created.

From this standpoint I venture a few remarks upon an ovariotomy case I operated upon a short time ago, the specimen from which I have already shown the society. My friend, Dr. J. H. Smith, of this city, asked me to see in consultation a patient of his presenting the following history, which I mentioned briefly when I exhibited the specimen: A large tumor was undoubtedly present, but the question was, What is it? It had developed suddenly in a woman just at the menopause. Was it uterine or ovarian? Vaginal examination yielded no information to assist in making a diagnosis between the two. It was perfectly solid and shaped like a uterine tumor, and was devoid of all evidence of fluctuation. All this was decided evidence of a uterine origin. In favor of ovarian disease, however, was the short time of growth (12 months), and the fact I had never seen a uterine tumor develope after the menopause. Nor had I ever seen any one who had had such a case. I was aware that Spencer Wells reported one instance where a woman developed a uterine tumor after the catamenial flow had ceased entirely. But this being the only case on record so far as I know, I did not look upon it as conclusive evidence. It is unnecessary to speak of the value of a correct diagnosis before operation, for in case of the tumor being uterine, extirpation is attended with a high degree of mortality. After balancing the evidence, I came to the opinion it was most likely ovarian, and so expressed my views. The patient was sent to the Union Protestant Infirmary and there operated upon. The tumor proved to be ovarian, of the multilocular variety, and although no fluctuation could be discovered before the abdomen was opened, the sac did contain about a gallon of fluid. There was a large broad adhesion of omentum and mesentery nearly covering the posterior aspect of the cyst which had to be stripped off and tied in two places. After placing these ligatures, I found one of them approaching too near the intestine, and by its constriction threatening paralysis or sloughing. I therefore untied this ligature, and placed it at the distance of between two and three inches from the margin of the gut, thus allowing a sufficient circulation. Some five or six minutes were thus lost, but I considered it best to be on the safe side. The cyst being finally removed, the abdomen was closed, and the patient put to bed. Time of operation, 45 minutes.

The patient received one hypodermic of morphia, and had a purge and an enema of spirits turpentine and oil on the fourth day. This constituted all the treatment received during the first few days, and the case recovered entirely and went home well.

Among subsequent complications of such operations, occasionally we have a distressing irritability of the bladder, with discharge of mucus and high colored ammoniacal urine. This condition may arise from the frequent use of an imperfectly cleaned catheter, or may result from inflammatory trouble in the pelvis, occasioned by ligatures tearing loose, adhesions, &c. It is my custom to allow the patient to use the bed pan as soon after an operation as possible, and not to encourage the use of the catheter unless absolutely necessary.

Some women after a severe operation have no trouble in urination, while others seem to suffer absolute paralysis of the bladder. When cystic irritability comes on I use

*Read before the Clinical Society of Maryland April 19th, 1889.

℞.—Benzoic acid ʒ ii.
Borax . . ʒ iii,
Water . . ℥ xij.

S.—A tablespoonful at a dose.

This prescription was originally used by Dr. Emmet in cases of vesico-vaginal fistula.

In using an anæsthetic, I prefer to begin with chloroform, as it takes less of it and saves valuable time. The amount of an anæsthetic taken is not in proportion to the painfulness of the operation, but in proportion to the time consumed by the operator while doing it. Anything then that lessens the time of operation lessens the anæsthetic, and to that extent increases the probabilities of a favorable result. It seems better to give, for instance, a few drachms of chloroform, producing sleep in five or ten minutes, than to give ether, which takes probably from 20 to 30 minutes, with the consumption of half a pint of the last-named article. Of course, the consumption of an anæsthetic depends largely upon the apparatus used in giving it. Occasionally a patient will say a pint or two pints of ether were used, when in reality, owing to a faulty apparatus, only a very few ounces were breathed in by the patient. In my opinion, the man in the room having the most experience should give the anæsthetic. The proper administration of the chloroform, as ether, is, of course, only one step towards celerity, but it is an important one.

By way of conclusion, I wish to say a word in regard to the method used in stitching up the abdominal incision. I have seen quite a number of methods employed, but it seems to me that other things being equal the best is the quickest. In the first place sharp, long, three-cornered needles are the best, as they penetrate the tissue better and require no needle holder to push them through. The hemorrhage from them ceases as soon as the thread is pulled into position, and there is no objection then on that account. Some operators first sew up the peritoneum with one row of sutures, and then put in an extra row of sutures to bring together the muscles and fascia. This double row of sutures is unnecessary, and besides takes time. There is no advantage in it, as, if one row of sutures is properly placed, the peritoneum is united just as well, as I have many times had occasion to observe. In the case here mentioned the sutures were taken out on the eighth day, and the incision was perfectly healed, and not a drop of any kind of fluid in sight. So far as I could see, no better result could be obtained by any method. It may do for some to have but a single assistant, but as far as I am concerned I want three or four. It needs one to give the anæsthetic, one to stand opposite to sponge, a third to wash sponges. If the operation is very bloody, a fourth assistant will come in well to assist with the sponging, cutting ligatures, needles, handing instruments, &c. So far as my observation extends, properly cleansed assistants do no harm. If they diminish the time of operation by ten minutes, they certainly do good. Thirty minutes is an abundance of time to complete a simple ovariotomy, but the greater the complications the longer the time. If we know the history of an operation and the complications encountered, and the *time* of the operation, we are many times enabled to draw a pretty accurate conclusion of the surgeon as an operator, without even having seen the operation. Everything possible should be looked to before beginning. The patient's clothing should be properly arranged, so as to be out of the way, the blankets should be properly adjusted, the abdomen should be thoroughly cleansed, the chief assistant ready and waiting, with sponges already wrung out in his hands, so that the moment the patient is under the influence of the anæsthetic the operation may begin. The observance of such details is many times indispensable. I have only mentioned here a few of the many ways by which it may be possible to shorten the time of an operation, but enough has been said to enable one to see how important the subject is.

1023 Madison Avenue.

Correspondence.

JOHNSTOWN PHYSICIANS.

JOHNSTOWN, PA., June 13th, 1889.

Editor Maryland Medical Journal:

DEAR SIR:—Please accept many thanks for the donation made by you and the medical brethren of your city. No one but those who have seen our condition knows it. We were out of medicine and almost all surgical instruments until a hospital was established and the Red Cross society arrived.

I shall divide the money as fast as I meet the physicians. I would have telegraphed you but such messages are much delayed here at present. On the part of the doctors here please accept my sincere thanks in sending us the money $169,00.

Yours truly,

Dr. J. W. HAMER.

[Tae amount sent according to last issue was. . . . $169.00
Since then the following amounts have been received
Dr. Henry Salzer. . . . 10,00
Dr. John N. Mackenzie. . 5,00
Dr. T. C. Peebles, Lutherville. . 2,00

$186,00

The $17 will be kept for a few days to enable others to add to it.—ED.]

TOO MUCH CHARITY.

Editor Maryland Medical Journal:

DEAR SIR:—Can such a thing be possible? Are we rapidly approaching the millenium? These are the questions that would suggest themselves to any one visiting the free dispensaries of our city and there see those able to pay treated like, with the poor and suffering. The quiry as to capability to pay should be thing. No one ought to be allowed rivileges of such places who can Such however is not the case. The gentlemen in charge of the dispensaries may ask, how can we help it? The answer is that some one must know of their pecuniary standing, and probably best the police officer on their beat.

Hence the solution to the puzzle I think—as the city gives much to their support,—is that the trusty guardians of the city should be the ones to say to whom the charity should be extended. Let cards be distributed at the station houses admitting patients to the dispensaries, just as to Bay View and other hospitals. These imposters should be reached since they damage in two ways. Being compelled they would help some young doctor.

An M. D.

Society Reports.

THE CLINICO-PATHOLOGICAL SOCIETY OF WASHINGTON, D.C.

STATED MEETING HELD APRIL 16, 1889.

Dr. R. T. Holden read a

REPORT OF TWO CASES OF STRANGULATED INGUINAL HERNIA. (See page 147)

In the discussion which followed

Dr. Snowden said hernia occurs in one in thirteen males and in one in fifty-three females; the proportion of inguinal to femoral hernia being seven to one; the symptoms are the same in both, due to obstruction. There is difficulty in making diagnosis when no tumor is recognizable; hence, Dr. Holden's case was obscure, though if volvulus there would have been dysenteric discharge, also in volvulus there is inequality of the surface of abdomen—one side tympanitic and other side dull—also tumor. Kingdon's table shows hernia to be more common among farm laborers, carpenters and servants—those who have to bend the bodies when working.

Death rate hard to get fairly, as the operation is put off until death is inevitable.

The bowels are disturbed above the obstruction, and there is often general peritonitis.

Dr. Snyder spoke of the interesting character of the paper. He had seen several cases; one a man in Georgetown who had a strangulated hernia, which had been operated upon one or two years before, but unsuccessfully; he tried taxis and lifting buttocks, but could not reduce it. He called in a consultant, who performed taxis in a manner much to his consternation, but succeeded in reducing it. Another case he saw in N. Y., upon whom they operated, his condition was bad, he had been saturated with opium, they had to desist before finishing operation; pulse grew so weak, and he shortly died. After death they found the gut broken down and about two feet of it gangrenous.

Dr. Beatty reported a case he had seen two years ago, in which taxis failed, and he was sent to the Garfield Hospital, where it was finally reduced by taxis.

Dr. Sprigg spoke of case referred to by Dr. Beatty; said the hips were elevated, and an enema of 1½ gals. of warm water was given, after which taxis for 45 minutes was tried, and it was finally successful.

Dr. Snowden related the case of a woman who was thought to have obstruction. She had a hernia which was reducible, in her, gall-stones, gave rise to obstruction; when these were passed she was relieved.

Dr. Johnston reported two cases.

Dr. Holden closed the discussion. He said had hernia been diagnosed in the second case he reported, taxis would have reduced it.

Dr. Sprigg asked if the pain were general or local.

Dr. Holden answered that it was general, nothing localized. He tried everything without success. He felt convinced that it was intussusception.

Dr. Snowden referred to another case of a man thrown from hand-car; localized pain in right side; small tumor, size of a half a peanut; the surgeon would not operate for two days; when he did operate he could not get it back.

Dr. J. William Funck has been appointed chief of the Eye and Ear Clinic at the University Dispensary, in place of Dr. Christopher Johnston, Jr., who has resigned.

Treatment of Hypertrophy of the Breast.—The following treatment is advised by Dr. Kisch in the *Deutsch med. Zeitung*. The primary treatment should consist in the use of the following salve:

℞.—Deodorized iodoform . . 1 part.
Vaseline . . . . . 15 parts.
Tincture of menthol . q. s.—M.

This ointment should be applied to the breast daily. In the later stages, the salve may be substituted by the following lotion:

℞.—Alum . . . . . 1 part.
Acetate of lead . . 5 parts.
Dist. water . . 100 " —M.

Compresses wet with this mixture should be applied, and may be kept moist by covering them with a piece of rubber cloth.—*Revue Général de Clin. et de Thér.*, May 2, 1889.—*Med. News.*

Ice in the Sick-room.—A saucerful of shaved ice may be preserved for twenty-four hours with the thermometer in the room at 90° F., if the following precautions are observed: Put the saucer containing the ice in a soup plate and cover it with another. Place the soup plates thus arranged on a good, heavy pillow, and cover it with another pillow, pressing the pillows so that the plates are completely embedded in them. An old jack-plane set deep is a most excellent thing with which to shave ice. It should be turned bottom upward, and the ice shoved backward and forward over the cutter.—*Sanitarian.*

Offensive Odor of the Breath, due to bad teeth or other causes, may be overcome, or at the least greatly abated, by the habitual use of *Listerine*. Add a teaspoonful to a tumblerful of water for a mouth-wash and gargle, and if a little is swallowed, so much the better. Indeed, a bad breath is not unfrequently caused by the gaseous eructations of indigestion, and for this also Listerine is an excellent remedy, in doses of twenty to thirty drops in a little water.—*Sanitarian.*

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WILLIAM B. CANFIELD, A.M., M.D., Editor.

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BALTIMORE, JUNE 22, 1889.

Editorial.

HIGHER MEDICAL EDUCATION. — The *North Carolina Medical Journal* bewails the fact that the profession of Baltimore, the alumni of the University of Maryland, and the MARYLAND MEDICAL JOURNAL did not sufficiently appreciate Dr. Richard H. Lewis' address on Higher Medical Education, delivered before the Alumni Association of the University of Maryland at its last meeting. That journal expresses itself in the following editorial:

"Baltimore, of all the cities in the Union (we don't even like to except Louisville, although we might be safer to do so), needs to be informed about the demands of the medical profession, for a higher education than the majority of medical graduates from the colleges of that city are getting. We were disappointed to notice that our valued contemporary, the MARYLAND MEDICAL JOURNAL, had so little to say on the subject of Dr. Lewis' address, when to us it appeared to be such a golden opportunity for a journal avowedly in accord with such a movement.

Dr. Lewis spoke by authority, and with a full knowledge of the subject, being an alumnus of the University of Maryland, and a member of the North Carolina Board of Examiners for several years. He had thoroughly mastered his subject, by experience both as a student and an officer of his State, chosen to carry on pioneer work in medical education. Was the subject a disappointment to the Baltimore faculty, or are we to draw our conclusions and say that the medical colleges of Baltimore represent too much capital to venture to speak of reform through the columns of their accredited medium? We know, personally, that there are many physicians not connected with the medical schools in Baltimore who will look upon Dr. Lewis' address as a timely topic thoroughly well discussed, and long for the day when the reform can commence, as commence it must. Can any one fail to see that the city which has the proud distinction of having the Johns Hopkins University and Hospital in its midst, will some day be compelled by the new standard of learning to see that all of her schools of medicine shall have a thorough course? How much more creditable would it be to set it on foot now? How much more creditable would it be for the colleges to be enabled to point with pride to the educational impress they had made upon its graduates, and be the recipients of reflected honors, rather than to find themselves compelled by the over-whelming voice of the profession to adopt reforms?

We have no doubt that the address will be read with interest, and will carry great weight with it. It was eminently fit that such a paper should emanate from North Carolina, the pioneer of the reform, and that it should come from one who, as Medical Examiner and Committeeman to the Legislature, has done so much to bring our standard to a point far in advance of any State in the Union."

The facts stated by Dr. Lewis, as well as the plans of Dr. Osler in his address on the same subject, are fully appreciated by the united profession here, and the subject was discussed in an editorial in issue of April 3, 1889. That the ef-

fects of these addresses have not worn off is evidenced by the fact that a movement is now on foot call a meeting of the medical faculties of all schools here to consider methods of raising the standard of medical education. With the exception of the Woman's Medical College, the schools here have made little or no advance in the past five years or more. The Woman's Medical College makes the announcement that it will require a three-year course, of seven months each, with graded instruction. The older schools will not make this advance yet, because they have sufficient reputation to draw a large number of students, and because the members of the faculties are not willing to lose the money which such a step would necessarily cause in the decrease of students. Even as it is, fully one-half of the students pay a nominal tuition fee, and any great decrease in the number of students in these unendowed schools would cause a collapse. While schools in the North and West receive endowments, gifts and bequests, no school in Baltimore, with the exception of the future Jonns Hopkins Medical School, has ever received an amount large enough to be remembered.

There is a reaction setting in, and the next five years will see great changes and advances in medical education.

Preventable Causes of Poverty.—Every one whether in business or in a profession is confronted almost daily with the fact that there exists in the world an enormous amount of poverty. Many have been the remedies proposed and various are the plans suggested to ameliorate this condition of things, but as they are always accompanied with an appeal for money, through some private individual or public charity organization, such ventures are not often successful,

In the *Forum* for June 1889, Dr. Henry D. Chapin has the courage to attack anew this monster problem, but looks at it with the calm experience of many years service among the poor at the medical dispensaries of New York. His idea, based on his medical experience, is that physiology can afford the best preliminary solution of some of the problems of sociology.

Many wealthy individuals wish to do good to the poor but they do not know how. They found hospitals, endow institutions of relief, etc., but this palliates rather than removes the cause. The poor (and perhaps the wealthy, too) are ignorant of the simplest hygienic laws as is most notably seen in regard to food. With a limited means they do not buy that food most sustaining and nourishing and that is particularly noticed in the case of young children, who at a time when their bodies are developing are given such improper diet (when wholesome food is just as cheap), that their bodies are crippled and the development hindered. The true way to help the poor is not to give them money or food knowing they will come to-morrow for more, but to teach them to help themselves. Cleanliness, fresh air, good food can all be obtained by the poorest, and yet so many of them prefer the opposite.

Let individuals seek out poor families and visit them regularly, giving them instruction on the first laws of hygiene and without the outlay of anything except a little time, the condition of the poor may be elevated. Then education must come to the children through the public schools and in time the poor will see their improvement and its advantages and will (with some failures) try to help themselves, finding it can be done with no increased outlay of money. If they are clothed and fed by their own exertions, they will be less apt to resort to alcoholics to keep off cold or hunger. This whole problem is extremely difficult to treat but undoubtedly an improvement could be reached if individual attention to families could be carried out.

Miscellany.

A Physician Deserts Physic for Philology.—Dr. Christopher Johnston, Jr., after several years of practice, has announced his decision to leave medicine and devote his time to philology. During his course at the University of Virginia, Dr. Johnston excelled especially in the ancient languages, and was one of the few men who left that centre of learning with the degree of A. M. In the wish

to follow in the footsteps of his illustrious father, he graduated in medicine at the University of Maryland, and has practised here for several years, but during all this time he has always given a great deal of time to languages, and in the past few years he has devoted much attention to philology, especially to Greek and Hebrew. He carried his studies to such a point that the Johns Hopkins University honored him with the position of Fellow in the Semitic Languages. During the past few years, Dr. Johnston has contributed to the literature of this department. He has written a "Biographical Sketch of Sir Henry Rawlinson, the English Assyrian Discoverer," which was published in the Johns Hopkins University Circular for March, 1889. Also at a late meeting of the American Oriental Society held at Boston, he read a paper on "Chaldean Astronomy." As his appointment at the Hopkins dates from October 1st, 1889, Dr. Johnston will continue the practice of medicine until that date. He has, however, resigned his position as Chief of the Eye and Ear Clinic at the University Dispensary. It is seldom that a medical man attains such eminence in this department of philology. Dr. Johnston, in the beginning of his new work, will pay especial attention to Assyriology. If it did not sound too much like an obituary notice, it might be added that his friends in the medical profession, and particularly his many friends among the younger men, will miss him, although they may console themselves with the fact that he goes into this new work with his whole heart.

Peculiar Nervous Affection of the Upper Limbs.—In the *Nouvelle Iconographie de la Saltpétrière* just issued, M. Paul Blocq describes an affection which is characterized by symmetrical atrophic paralysis, with disorder of sensation exactly corresponding to the musculo-cutaneous distribution of the ulnar nerve. In these characters the affection resembles amyotrophy of cord and nerve origin and primary myopathy, as well as amyotrophic lateral sclerosis. It is an affection which runs parallel with a similar lead neuritis of the musculo-spiral nerve. What, then, constitutes its peculiarity? That there exists a group of such cases, having no very obvious cause is perhaps sufficient to warrant a separate clinical class being established. Cases of the kind have followed typhoid fever, and very likely have been due to neuritis. Eleven years ago, in the *Archives Générales de Médécine*, M. Panas recorded a case of ulnar paralysis in one nerve supervening twelve years and a half after a fracture of the elbow on the same side. In the groove at the inner side of the elbow the ulnar nerve developed a fusiform swelling, which led to the formation of a typical "main en griffe," interosseal atrophy, and disturbed sensations, with diminished tactile sensibility in the ulnar distribution. The symmetry of the peculiar affection described by Blocq is an additional feature of the disease, and though it recalls diseases due to lesions about the lowest part of the brachial enlargement of the cord, still this symmetry alone cannot be taken as evidence of the situation of the lesion. For example, lead was long thought to exercise a special primary influence over the motor nerve cells of the anterior cornua of the spinal cord, until it was proved that it had a greater affinity for the distal extremities of these cornual cells, producing a peripheral neuritis rather than a myelitis.—*Lancet.*

Persistent Vomiting. — Persistent vomiting, especially that of pregnancy, is often most difficult to overcome, and baffles every effort of the physician; indeed, several fatal cases have been lately reported. Dr. Blumensandt, in *L'Union Médical*, of May 2, 1889, says that he has found the following formula invaluable in such cases:

℞.—Hydrochlorate of cocaine 3 grains.
Tincture of anise . . . f ʒ ijss.
Spirits of menthol . . . f ʒ ijss.
Linden-flower water . . f ℥ v.
Syrup of cinnamon . . f ʒ j.—M

A dessertspoonful to be given every hour until the vomiting has ceased.—*Med. News.*

Common Salt as an Antiseptic.—Dr. Wirt A. Duvall writes: The leading antiseptics, as is well known, that combination of chlorine and mercury, known as bi-chloride ($HgCl_2$.) Probably the next is the yellow powder, iodoform, over 90 per cent. of which is iodine. The great household disinfectant is the chloride of lime. The foregoing conclusion seems justifiable that chlorine, or one of its group, in combination (the same quickly yielding the agent so held) is a death dealer to germs. It is well known that common salt is a combine of chlorine with another substance, viz., sodium. It is, too, known that salt yields readily its chlorine. Taking all these facts, why then is common salt not a good remedy in small cuts and lacerated wounds?

Professor Kremianski's Treatment of Phthisis.—Professor Kremianski, whose name is known in connexion with the treatment of phthisis by means of the inhalation of aniline and the internal use of aniline and acetanilide, has recently published a pamphlet giving some account of the latest practice as employed in his out-patient clinic, where he has accumulated a large experience, having already treated fully a thousand cases. Latterly he has found great advantage from combining iron with his usual antiseptic treatment, seeing that it minimises the tendency to the blue colouration so often noticed in patients who are taken aniline or antifebrine; besides, it has of course an admirable effect on the anæmic condition which is common to most phthisical patients. He also sometimes employs an ointment for rubbing in under the clavicles, consisting of aniline, boracic acid, and oil of peppermint, an ounce of each of these ingredients being combined with eight ounces of white vaseline. Professor Kremianski has sometimes been accused of sailing too close to the methods of quacks, but no one can read his published cases without being convinced that, while there is one main idea—viz., that of attempting the destruction of the tubercle bacilli by means of substances poisonous to them, especially aniline,—Professor Kremianski's methods are eminently scientific and very far removed from the empiricism of the quack. Every case is examined and diagnosed with great care, measurements of all kinds, microscopical examinations and physical signs being recorded at frequent intervals, and each case being treated on its merits and according to the special needs and idiosyncrasies of the patient. Some interesting cases are given in the pamphlet referred to, several of which are recorded by Professor Kremianski's principal coadjutor, Dr. Goliarkhovski; and some charts showing the improvement in the temperature and general physical conditions during the progress of the treatment. In some of the cases the bacilli seemed to have disappeared, while in others their numbers had decreased to an enormous extent. It must not be forgotten that a very important part of the treatment consists in giving the patient considerable quantities of a specially prepared meat powder devised by Professor Kremianski, a notice of which appeared in *The Lancet* of Oct. 27th, 1888.—*Lancet.*

Transmission of Tubercle to the Fœtal Organism.—MM. Malvoz and Browvier lately read a paper at the Liège Medico-Chirurgical Society in which they demonstrated the occurrence of tubercle bacilli in a fœtal calf, thus confirming a similar observation of Johne (in 1885), and affording proof of the actual transmission of the tubercular virus from the maternal to the fœetal organism. One of their specimens was from an eight months' fœtus found in the uterus of a tuberculous cow. The liver contained numerous greyish-white granulations, and small cretaceous yellowish points were found in the centre of the lymphatic glands at the hilus of the liver and root of the lung. Sections of each of these parts displayed well-marked giant cells and numerous bacilli. In another case—that of a calf of six weeks—similar but more advanced lesions were found. The same subject was also recently discussed at the Paris Society of Biology (*Gaz. Hebd. des Sci. Méd.*, No 21) in a paper by M. Sanchez-Toledo, who traced the history of the

question from the experiments of Strauss and Chamberland with athrax. Unlike Martin, Landouzy, and others, the author did not find evidence of transmission of the tubercular virus from the maternal to the fœtal organism. In one set of experiments he injected pure cultures of Koch's bacillus into the jugular vein of pregnant guinea-pigs; but neither in the blood nor the organs of the fœtuses was he subsequently able to detect any trace of the microbe. Similar negative results followed experiments of injections into the pleural sac and beneath the skin of pregnant guinea-pigs, for, although the animals themselves became tuberculous, their fœtuses were quite free from the infection.—*Lancet.*

Alleged Contagiousness of Cancer. A small commune in Normandy, Saint Sylvestre-de-Conrcellas, with a present population of only 379, as compared with 500 twenty years ago, has in the eight years 1880–1887 lost no fewer than eleven of its inhabitants, between the ages of sixty-two and eighty-three, from cancer—a proportion of 15 per cent. of the total mortality. All but one of the cases were males, and in as many as eight the cancer was seated in the stomach. Such facts have led Dr. Arnaudet (*L'Union Méd.*, No. 52) to conclude that cancer is contagious, and is propagated through the medium of water. It is true, he remarks, that not one of the eleven persons mentioned were water drinkers, but then they drank cider, which is made with the pond water of the district. Dr. Arnaudet thinks this sufficient ground to advocate the use of antiseptics and of boiled water as prophylactics against cancer, as well as typhoid fever or phthisis.—*Lancet.*

Sulphonal in Mental Diseases.—Dr. Liborio Lojacono, assistant in Professor L. Bianchi's *clinique* for mental diseases at Palmero, has recently reported the results of some experiments which he has made with sulphonal on patients suffering from different forms of insanity. The drug was always exhibited in a single dose in water or syrup, from 1 to 1½ gramme being given to women and lads in the evening, and 2½ grammes in the daytime. In men the evening dose was from 1½ to 2½ grammes. The physiological action of the drug began to show itself in half an hour at night and in an hour during the day. It produced no great effect on the respiration or on the pulse, though there was a considerable increase in the blood pressure. Digestion and temperature were unaffected, while neither the sensibility nor the various reflexes were modified in any way. In only one case, a woman suffering from melancholia, to whom large doses (2 to 3 and 4 grammes) were given three days in succession, did any unpleasant after-effects occur; she was troubled with sickness after meals and a feeling of prostration for one day. It was never necessary to increase the dose owing to patients becoming habituated to the drug, nor did it appear to have any cumulative action. The first effect observed was that the patients became quiet, and soon sat down or went to bed; this was shortly followed by sleep, which in the daytime, was often light and easily broken, but at night was sound and natural. The effect was found to vary according to the strength of the dose and the time at which it was given. Thus, while 1 or 1½ gramme given during the day produced little effect, the same quantity exhibited at night produced sleep lasting from five to eight hours. Two grammes during the day induced broken sleep for a few hours, but at night made the patient sleep quietly the whole night through, and sometimes even the following night. In some patients suffering from insomnia a single dose of 2½ grammes given at night produced tranquil refreshing sleep for two, three, or more nights running. In no case did the drug fail in its effect, the largest quantity required having been 2½ grammes at night and 4 grammes in the day. In addition to its power of inducing sleep the drug had a marked effect as a general sedative. In cases of acute maniacal or hysterical delirium and epileptiform convulsions the paroxyms were either prevented or greatly mitigated; in chronic forms of insanity the effect was much less marked.—*Brit. Med. Journal.*

The Ophthalmoscope.—The ophthalmoscope, at one time considered as nothing but an interesting scientific toy, has become an indespensable instrument in physical diagnosis. Its history is a succession of triumphs. The wonderful progress made within the last thirty years in ophthalmology is altogether due to this instrument. By its means the neurologist has been able to penetrate the mystery which enshrouded many cases of brain and spinal disease, and our knowledge of kidney diseases, secured from the ophthalmoscope a valuable contribution when it revealed the existence and nature of the various forms of ocular disturbances concomitant with with and due to nephritic disorders. In view of these facts should not the use of so important an instrument be thoroughly taught in our medical colleges? Should not every physician be equipped not with the instrument alone, but with the knowledge and experience necessary for its practical use. Yet how far are we from this state of things. How few of our graduates know how to "throw light into the eye," and of these how small the number who know what they see in the field thus illuminated. If these men only knew enough to know what they don't know, the case would not be so bad, but ignorance is proverbially arrogant, and hence the mistakes of the ignorant are prone to escape correction. It is really humiliating to witness a graduated physician attempting to examine an eye while the light reflected from the mirror is seen illuminating the wall beyond the patient's head, and how often serious blunders in diagnosis occur is best known to those who have had an opportunity to watch graduates at work with this instrument.

A more thorough instruction in the use of the ophthalmoscope is imperative, and our medical colleges should see to it that the student be throroughly trained in its use. Of course it cannot be expected that the general practitioner shall be an expert, that should be left to the oculist, but every medical man should at least be able to recognize the difference between a transparent and an opaque lens, a normal papilla and a choked disc, and a healthy retina and one affected with retinitis. Then will men be able to recognize also their limitations, and serious blunders will not be so common. Until this condition of things is brought about we cannot lay claim to that high standard of medical education which should characterize the curriculum of the American medical colleges.—*The Journal.*

The New Analgesic Exalgine.—Still another compound of apparently considerable medicinal value (if we may trust the statements) has been obtained from one of the products of the destructive distillation of coal-tar. It has been experimented with by several members of the Academy of Medicine, who have reported favorably, and in consequence of its marked analgesic properties it has received the name exalgine.

At the last meeting of the Société de Thérapeutique, M. Bardet presented samples of this substance and made his report.

Exalgine represents, chemically, methylacetanilide, $C_9H_{11}N.O=C_6H_5C_2H_3O\text{-}NCH_3$. From acetanilide three methylic derivatives are obtained; one of these is the substance in question, and is designated by the name ortho-methylacetanilide. It presents itself in the form of fine needles or large white tablets, is little soluble in cold water, more soluble in warm water, and very soluble in spirit and water. Administered to animals (Paris) this substance acts energetically on the cerebro-spinal axis and speedily kills in the dose of forty-six centi-grammes per kilogramme of the weight of the animal. It causes restlessness and trembling, and the respiratory muscles soon become paralyzed. In a less dose all sensibility to pain disappears, and the temperature of the body diminishes gradually.

The physiological effects of exalgine are very similar to those of antipyrine, although the former seems to act in a more marked manner than antipyrine on the sensibility, and less energetically on the heat centres.

The analgesic effects of exalgine are obtained by a full dose of seven grains;

in some instances it may be necessary to repeat this dose in a few hours. The relief from pain is more prompt and more lasting than when antipyrine is given; this is emphatically the case in all forms of neuralgia, especially in the visceral neuralgias. So far, no symptoms of gastric or intestinal irritation have been noted when exalgine has been given for its medicinal effects; its use has never been attended by cutaneous eruptions or by cyanosis.

Exalgine is eliminated by the urine, the excretion of which it seems to lessen in diabetic polyuria, at the same time that it diminishes the quantity of sugar in the urine.—*Boston Med. and Sur. Journal.*

Medical Items.

The daily papers report a case of yellow fever at Brooklyn.

An Italian doctor with the suggestive name of Poppi is said to have invented a new hypnotic.

Professor Westphal, of the Berlin Charité has not yet recovered from his illness; he is in the hands of Professor Binswanger, of Jena.

Dr. Hueppe, of Wiesbaden, has been selected as successor to Dr. Soyka in the chair of Hygiene at the German University at Prague.

The German Government is about to institute a special State Examination for chemists wishing to devote themselves to the analysis of food stuffs.

A circular has been issued to schoolmasters in Germany requesting them to furnish statistics of pupils who stammer; this defect of utterance appears to be on the increase.

Dr. Samuel G. Lane, one of the most widely known physicians and surgeons in Chambersburg, died recently, of apoplexy, after a short illness, aged sixty-two years.

Dr. H. B. Thomas has resigned his position as resident physician to the University Lying-in Hospital, and has opened an office at 302 E. Lanvale Street.

Mrs. Jane C. Stormont, widow of the late Dr. D. W. Stormont, of Topeka, has generously given $10,000 to the Kansas Medical Society for the purchase of a library for the benefit of the profession.

For the convenience of English-speaking students, the Vienna *Weekly News* has opened an inquiry office near the general hospital, where information as to lectures, lodgings, &c., may be obtained free.

It is reported that Dr. John Whitridge Williams, on his return from Europe, will receive the appointment of chief of the Obstetrtc Clinic at the Johns Hopkins University, under Dr. Howard A. Kelly, the recently appointed Professor of Obstetrics.

The physiologies will have to be overhauled. A Russian has been varnishing people, and finds that covering the skin with an impermeable preparation causes no discomfort in man, though it kills rabbits.

Dr. Mary Dixon Jones, of the Brooklyn Woman's Hospital, is accused of having a mania for operating, and to have found uterine cancers in about every woman who entered her little parlor.

According to a Berlin correspondent, Prof. Förster, Head Physician of the Royal Eye Hospital in Breslau, maintains that short-sightedness in children is not infrequently due to their wearing too tight-fitting collars.

The New York Post-Graduate Medical School will open a summer term on June 17th. The fees for this session are one-half those of the winter term, while the advantages in the Dispensary of the School and in many of the Hospitals of the city are the same as during the winter.

The Warren Triennial Prize of the Massachusetts General Hospital, amounting to $500, has been awarded to Dr. H. A. Hare and Dr. Edward Martin, of Philadelphia, for an essay on "Some New Studies on the Phrenic Nerve and Artificial Respiration,"

The sixth annual meeting of the American Climatological Association will be held in the Boston Medical Library Association Hall, 17 Boylston Place, Boston, on June 24 and 25, under the presidency of Dr. Vincent Y. Bowditch, of Boston. The programme contains a large number of papers by eminent physicians.

The first announcement of the opening of Clark University has been issned. Teaching will be given in mathematics, physics, chemistry, biology, and psychology. The teachers in biology and psychology are Professor Hall, Dr. H. H. Donaldson, Dr. E. C. Sanford, Dr. Warren P. Lombard and Dr. F. P. Mall.

The *New York Medical Journal* announces the death of Dr. R. Ultzmann, extraordinary professor of diseases of the urinary organs at the University of Vienna. Dr. Ultzmann was a great favorite with American medieal men in Vienna, and his death is a great loss to the University.

It will be remembered that the International Medical Congress in Washington determined that the next Congress should meet in Berlin, and entrusted Professors Virchow, von Bergmann, and Waldeyer with the necessary preparations. These gentlemen, and a few others who have experience in such matters, met on May 27th, and determined that the necessary steps shall now be taken energetically and at once. The Congress is to meet next year.

Original Articles

THE MANAGEMENT OF BREECH PRESENTATIONS.*

BY L. E. NEALE, M. D.,

Demonstrator of Obstetrics in the University of Maryland. Visiting Physician to the Free Lying-in Hospital.

Having nothing new to state or no great deeds to boast, I fear this article may be relegated to that class of useless literature cynically styled by Mr. Lawson Tait "library papers."

Yet, to my mind we should assemble in medical society not so much for the revelation of our discoveries or the vainglorious heralding of our laudable deeds, as I believe is only too often the case, but rather for the promotion and general diffusion by friendly scientific discussion of that knowledge which we already possess. For, as Sir James Paget very truly says: "the best work of a medical society is in the clearing and strengtheniug of the knowledge of realities."

Therefore, I have selected "The Management of Breech Presentations" for my subject, not that I have anything new to tell, but that I have good reason from personal observation to believe, that our positive knowledge of many very practically important points on this subject is not generally diffused or promulgated.

Frequency:—Variously estimated as occurring once in 30 cases by Collins, once in 62 cases by Pinard, once in 80 cases by Barnes, breech presentations are usually regarded as offering in about 2 to 3 per centum of all cases of full term labor.

Whether the foot or feet, knee or knees, nates alone or any of the several combinations of these distinct varieties offer, nearly all accoucheurs now consider the presentation to be one of the breech or pelvic extremity that requires one and essentially the same mechanism for its delivery. But as these several varieties present marked differences in frequency, diagnosis, clinical history, prognosis and treatment, it is usually customary to specify the particular form of breech presentation with which we have to deal.

An idea of the relative frequency of these varieties may be obtained from the eighty-five cases of breech presentation observed by M. P. Dubois, in which the nates appeared first at the vulva fifty-four times, the feet twenty-six times and the knees in not one single instance. To point out the physical signs by which we may diagnose and differentiate the various forms of breech presentation, or to describe the mechanism of delivery, would be for me at this time and place a work of pedantic supererrogation.

Prognosis:—It is however, well to bear in mind that here the natural and favorable may be so readily changed spontaneously or artificially into the unnatural and unfavorable, that we should devote more than ordinary care to the accurate examination and close observation of breech presentations throughout the entire course of the accouchement. This is obvious when we note the fact, that here although the dangers for the mother are but little if at all greater than in vertex presentation, yet for the unborn child they are not only unavoidably and intrinsically great, but become still greater in direct proportion to our failure to recognize them or to judiciously correct them when discovered.

Providing the os and lower uterine segment have been thoroughly dilated, breech presentations under competent medical attendant are probably even more favorable to the mother than those of the vertex.

The expulsion of the soft and compressible body is usually effected with ease, and should difficulty arise with the hard and comparatively incompressible after coming head, it can very generally be readily delivered by supra-pubic expression or by manual extraction. Usually, however, the most unfavorable element to the mother consists in the dystocia from slow or imperfect dilatation, because the breech obviously presents dilating properties far inferior to those

*Read before the Clinical Society of Maryland, June, 1889.

of the vertex. It is large, it is irregular and it is poorly adapted to the canal through which it has to pass.

The os dilates slowly and imperfectly, the membranes pouch (Lachapelle), they rupture before full dilatation, the presenting breech presses unevenly against the neck, which not being supported by the wedge-like pressure of the vertex, "collapses and contracts" (Cazeaux) thus offering a formidable obstacle to safe and rapid delivery. Another difficulty to the mother and absolute danger to the child inherent to this mode of birth, consists in the fact, that the largest and most vital part of the child, the head, is the last to leave the uterus, which after expulsion of the trunk and liquor amnii, being small, loses by this retraction its expulsive power of contraction at the very moment when this expulsive power is most needed.

Fortunately, however, here art offers many aids to nature. These are in the order of preference during labor: 1, expression, 2, manual extraction, 3,forceps, 4, fillet, 5, the blunt hook.

I regard the blunt hook in this connection as practically belonging to the destructive class of instruments and therefore to the child rather a destroying substitute for, than a conservative aid to, nature.

Although in general the safety of both mother and child should be judiciously considered in the proper management of every case of labor, really in cases of breech presentation with a competent attendant the danger is practically nil to the mother but may be very formidable to the child.

Extraction in breech presentations whenever performed in order to save the life of the child must be done rapidly, yet we must not forget that any attempt to force or drag the aftercoming head violently through the undilated cervix or vulva is very liable not only to injure the child but also to lacerate or otherwise seriously impair these structures and thereby endanger the mother.

Festina lente should be the motto.

There is the danger to the child, already mentioned, arising from the natural diminution of the expulsive power of the uterus as it becomes rapidly small by retracting upon the aftercoming head, the largest, hardest, least yielding and adaptable part.

There is the danger of partial or complete separation of the placenta from retraction of the uterine walls before the aftercoming head is delivered.

There is danger of compression of the placenta between the powerfully contracting womb and the child's head, interfering with placental circulation.

There is the danger of the child insufflating the fluids in the uterine cavity, especially when its reflex activity is rudely excited, as by the pernicious habit of thrusting the finger into the anus for diagnostic purposes, or of tightly grasping it around the abdomen in improper attempts at manual extraction. But by far the greatest danger is that arising from mechanical obstruction to the fœto-placental circulation from compression of the cord.

There is also the danger of extension of the trunk, arms and head. This, in otherwise normal cases, is so frequently the direct result of that time-honored, very tempting yet wholly unwarrantable practice of pulling upon the child's feet, that Desormeaux, Schroeder, Zweifel and many others, unhesitatingly attribute the chief danger in breech presentations not to nature's inability to accomplish her work of delivery, but to the over-zealous desire of the culpably ignorant attendant to perform it for her.

Charpentier places the maternal mortality in breech presentations at 1 p. c; in vertex at 0.57 p. c.. The infantile mortality has been variously stated: Lachapelle places it at a little more than 1 in 7 (for vertex 1 in 30); Dubois after eliminating the causes of death irrelevant to the presentation determines that one child out of every eleven dies, in breech presentations, in vertex one in fifty.

Charpentier places the mean fœtal mortality in breech presentations during labor at the very high estimate of 35 p. c., and states that 5. p. c. of the infants born living die during the first twenty-four hours of extra-uterine life, while only 2 p. c. of children in vertex presentation

die during delivery and but 1 p. c. during the following twenty-four hours.

Treatment:—Hence, to diagnose breech presentations by abdominal palpation during the early stage of labor or in fact even during the latter month or six weeks of pregnancy, and by external or abdominal version to do away with them altogether and substitute the more favorable vertex presentation (Pinard), would seem quite a desirable thing to accomplish and a very simple and harmless method of avoiding an exceedingly dangerous difficulty.

"The grounds upon which objection is made to this treatment are first: the difficulties in delivery occur more especially in primiparæ in whom such version may be difficult or impossible, while in multiparæ, in whom version may be readily done, the prognosis of pelvic presentations is not serious; second, it is chiefly those cases where the fœtus is doubled (frank-breech of Pinard) that are the most serious, and in these both the diagnosis at the time and the version are almost if not quite impossible." (Parvin 1886, p. 435).

I have performed external cephalic version for the correction of a breech presentation during the latter month of pregnancy in one case and in that case the result was all that could be desired, for the woman, a multipara, without the use of a binder or any further treatment whatever, was delivered at term of a child presenting the vertex I had turned. On more than one occasion, however, have I observed a breech presentation to be turned spontaneously during the latter month of pregnancy into a vertex presentation, which was maintained during the delivery, and in one case occurring in the Free Lying-in Hospital during the past year where the woman (a multipara) was subjected to frequent and careful examinations, this spontaneous version took place no less than three times prior to the accouchement.

To my mind it seems very questionable if an abdominal bandage can be applied sufficiently close to maintain a vertex presentation when artificially or spontaneously produced during the latter month of pregnancy (Pinard), especially when the woman is permitted to move about or engage in her ordinary avocations. Even should it be so applied I am inclined to believe it would prove entirely too uncomfortable for the average woman, hence it could never be very generally adopted by the profession as a preventative against the recurrence of breech presentations.

Practically then we are called upon to treat these cases only during labor and even then they should be regarded as perfectly normal requiring no interference on our part except the usual attentions bestowed upon mother and child during and after the accouchment.

It is painfully surprising to find how frequently this simple fact is overlooked, viz., that breech presentations are normal presentations and per se require no artificial interference whatever. The vast majority of breech labors are eutopic labors. It is only where dystocia occurs from some accident arising during delivery or from the failure of nature to accomplish the act in the desired time or manner for the given case, that we are called upon to interfere, and even then very generally we should lend merely a "helping hand," no instruments or artificial devices being at all required.

In the first place, bearing in mind for the reason already stated that dilatation of the os is accomplished more slowly and with greater difficulty than is the rule in vertex presentations, we should use every precaution against the early rupture of the membranes. Some of these are: first, to refrain from too frequent or rude examinations; second, to make the diagnosis by the external rather than the internal methods of physical exploration; third, not to permit the woman to walk about during the first stage of labor, but to put her early to bed, and when there advise against all sudden or violent movements, as tossing from one position into another; fourth, to insist upon her avoiding all voluntary expulsive efforts during the first stage; fifth, should the sac be long, pouching, thin, tense and threaten rupture before full dilatation, to employ the colpeurynter, although this latter is rarely required.

However, even if the membranes should rupture before the os is dilated it need not cause any alarm, for very generally the breech will accomplish the dilatation although more slowly and with greater difficulty. Should any condition or accident arise that calls for rapid delivery, the os may be dilated by the finger and afterwards by pulling down a leg.

Remembering the frequency of presentation and prolapse of the cord, we should be watchful to detect this accident in order to treat it as early as possible.

We speak of presentation of the cord when it is felt in the bag of waters in advance of the child.

If this occurs before engagement has taken place it may sometimes be removed by postural treatment of the mother, such as the genu-pectoral or exaggerated semi-prone position, possibly aided by intra-vaginal manipulation or gentle taxis between the pains when the membranes are relaxed.

If the genu-pectoral position can not be borne or for other reason is impracticable, the exaggerated semi-prone position may be tried, placing the woman on the side opposite to the one in which the cord is felt and elevating the hips with a cushion. We speak of prolapse of the cord when it is felt in advance of the child after the membranes have ruptured. In this case, if time permits and the cord be not compressed but pulsating well, reposition by the fingers, looped catheter with stylet (instrument of Roberton), or other mechanical device may be attempted. Should these measures fail or the condition of the cord require immediate delivery, it should be placed if possible in a position where it will be least subjected to compression, which is usually over one or other sacro-iliac synchondrosis, and the child delivered in the manner to be presently described. In the delivery the cord should be kept slack by pulling down a loop and placing it where it will be least compressed, but if it can not be pulled down to a slack, rather than run the risk of its laceration it were better to compress it with pinch forceps, or if possible, ligate, cut and deliver as rapidly as possible.

Should the child straddle the cord a loop should be pulled down, enlarged and slipped over one leg, or failing in this ligate, cut and deliver as before.

Essentially the same plan of treatment is applicable to the cord constricting the trunk or neck, or caught between any part of the child and the pelvic canal. Inasmuch as the cord is subjected to compression from the time the umbilicus enters the superior strait, or, what is the same thing, the breech is passing the inferior stright or vulva, Galabin advises that the finger be passed into the vagina, and as soon as the umbilicus can be reached, a loop of cord be gently drawn down to a place of least compression which is usually over a sacro-iliac synchondrosis. This he considers the first duty of the accoucheur and it is intended, first, to prevent interference with the fœtal circulation consequent upon stretching of the cord, and second, to enable him to better watch the evidence of danger to the child as manifested by the character of the funic pulsations. Although this precaution may be good practice, it is very probably no great fault to omit it in accordance with the usual custom, for Galabin himself later states, that in the management of an ordinary case "the most important point is to avoid premature interference with nature; artificial aid beyond that afforded by external pressure upon the fundus uteri being rarely required before the stage at which the arms have escaped and the head alone is still retained within the vulva, lying no longer in the body of the uterus but in the vagina and distended cervix" (Galabin 1886, p. 630). This latter is to my mind the better practice, for, under these conditions the less we excite the reflex activity of the unborn child the better; besides, there is usually no necessity of pulling upon the cord until the umbilicus has passed the vulva, and should this be attempted earlier, there is some liability of displacing the feet or otherwise interfering with the normal mechanism.

In the delivery, an important point is never to forget that flexion of legs, body, arms and head is the most favorable at-

titude for the child, and that this may be far better maintained by a vis a tergo or *pressure* over the fundus uteri in the axis of the superior strait during the pains, than by a vis a fronte or *traction* upon the legs, for this traction may produce extension of legs, body, arms and head with the accompanying dangers and difficulties. Pressure from above may be made either by the accoucheur or nurse from the time the breech appears at the vulva until the head is completely delivered.

As the body becomes disengaged, grasp the child by the ankles and elevate it towards the mother's abdomen in order to facilitate the delivery of the after-coming head.

Protection of the perineum from dangerous pressure is in my opinion better than "support of the perineum," and may be best accomplished by preventing the too rapid escape of the head, which will be hereinafter described when we come to speak of the methods of extraction. So far then, if breech presentations are normal presentations requiring no interference with a view to delivery until some indication arises during labor, it behooves us to briefly enquire what are these indications. They may arise from the mother or the child and be either of an anatomical or of a functional character.

Mother: Anatomical:—Any condition of the hard or soft parts offering a mechanical obstruction to delivery, ex. gr: contracted pelvis, tumors, swellings, œdema, rigid cervix or os, cicatricial bands, rigid perineum, etc.

Functional:—Absolute or relative inefficiency of uterine action, syncope, eclampsia, hemorrhage, persistent vomiting or general weakness from any condition.

Child: Anatomical:—Any abnormality in size, shape, or position offering a mechanical obstacle to delivery.

Functional:—Any hindrance to fœto or utero-placental circulation, as from pressure, prolapse, and stretching of the cord, from firm uterine contraction and retraction upon the after-coming head, from partial placental separation, &c.

When the condition of the cord can not be directly felt, the unborn child may manifest symptoms of threatened asphyxia by the copious discharge of meconium, which cannot be accounted for by direct mechanical pressure, by reflex twitchings of the legs, by contractions of the abdominal muscles in the effort at gasping, by cyanosis of limbs or body not caused by constriction from the maternal soft parts.

All these various conditions and many more we class under the general head of dystocia, and it is for the relief of these difficult, unfavorable or abnormal cases of breech presentation that artificial aid is required, and manual or instrumental delivery is indicated.

In this connection it is only to the methods of extracting the child that I desire to call attention.

These are either manual or instrumental, and differ in either case according to the variety of the breech presentation, and the peculiarity of the conditions under which we operate.

The operation is usually described as consisting of three stages: first, extraction of the body; second, of the arms; third, of the after-coming head; either one or all being required, according to the peculiar conditions of the individual case.

Extraction of the body:—It has already been stated that complete flexure of the child is the most favorable attitude, and that this may be best maintained by pressure from above over the fundus uteri; but frequently this comparatively slight power proves altogether insufficient, and, indeed, as a general rule, when artificial delivery is indicated, we have to perform it principally by traction from below, using the pressure from above merely as an auxiliary.

Whenever practicable this traction should always be made upon the leg of the child, but when impracticable, it may be made directly from the breech. It should be remembered that of all the varieties of breech-presentation, only two are at all common, the others being the very rare exception.

These two are: first, what is termed full-breech, where the legs are flexed down alongside of the breech and the feet

are very close to the os; and second, what is called frank-breech, where the legs are extended along the front of the child's body, with the feet alongside of the shoulders, high up in the fundus uteri. In the latter instance the legs act as a splint, preventing latero-flexion of the body, hence interfering with the normal mechanism.

"In both cases the breech represents the apex of a wedge entering the pelvis, whilst the base is delayed at the brim. The indication is to decompose the wedge" by bringing down a foot in either instance.

In the former, full-breech, this is usually a very simple and easy procedure; in the latter, frank-breech, it is often one of the most difficult obstetrical operations. Indeed, when the frank-breech is jammed tightly into the pelvic brim or cavity, it may be impossible, and in this case we must resort to manual or instrumental traction directly from the breech.

To pull down a leg in full-breech presentation, the entire hand or only two fingers will be required, according as the breech is high or low. The leg should be caught at the ankle, between the index and middle finger or between the index and thumb. The anterior leg is generally preferred, as traction upon this will best effect dorso-anterior rotation of body and head.

We grasp only one foot, first, because it is easier to catch and to hold; second, because the other leg extended along the child's trunk forms an angle in which the cord is best protected from pressure; third, because the other leg, together with the breech and body, form a better dilator for the after-coming head. As the foot is drawn out of the vulva the hand should grasp the leg with the thumb placed over the calf behind and the four fingers around the leg.

Should the hand slip, the grip may be strengthened by the other hand, or the vernix may be wiped off, or the leg may be enveloped in a towel before it is grasped. Traction is made outwards and downwards until the breech is drawn down upon the perineum, and then the line of traction should be outwards and upwards, firm pressure by the other hand, or the hand of an assistant, being at the same time made over the fundus uteri through the abdominal walls.

As soon as the breech has been drawn sufficiently out of the vulva to pass the index fingers over the groins this should be done, while the thumbs lie over the back of the sacrum with the three fingers grasping around the thighs or pelvis.

With this grip and pressure from above, we continue the extraction until the inferior angle of the scapula appears at the vulva, at which stage extraction of the body is complete. Anæsthesia is usually not required. Of course due attention should be given to the cord as mentioned in the previous part of this paper. The leg we do not grasp generally requires no special manipulation, as it will escape during or at the completion of the delivery of the body.

Now, before describing the method of extracting the arms, let us speak of extraction of the body in the second class of cases or those of frank-breech presentation. Here, likewise, the rule is to bring down a leg whenever possible, and only when this is impossible should traction be made either manually or instrumentally, directly from the breech. When the breech is not fixedly engaged it is comparatively easy to pass up the hand and grasp the foot, but when the breech is jammed into the pelvic brim or cavity, it may be impossible, yet, even in this case, as it is so desirable to get a foot, I would advise that an attempt be made, with due care and moderation of course, to push up the breech with the internal hand, which may then pass up into the cavity of the uterus in search of a foot.

Always try to avoid squeezing the cord by pushing it where there is most space.

This pulling down a leg in frank-breech presentations, or Barnes' method of decomposing the wedge of the breech, is frequently a very difficult operation and requires chloroform, as the hand must be introduced in utero even higher than in the performance of internal podalic version.

It is thus described by the author: "Place the patient on her left side; produce anæsthesia to the surgical degree

support the fundus of the uterus with your right hand on the abdomen; pass your left hand into the uterus, insinuating it gently past the breech at the brim, the palm being directed towards the child's abdomen until you reach a foot —the anterior foot is the better to take; a finger is then hooked over the instep, and drawn down so as to flex the leg upon the thigh. Maintaining your hold upon the foot, you then draw it down out of the uterus and thus break up the wedge."

In this country the woman is usually delivered while lying on her back; the nates are drawn over the side of the bed; the legs are held apart as in the usual obstetric operative position; the operator stands in front of the patient, and while steadying the uterus with one hand introduces that hand best adapted to the side in which the feet are known to be located.

The hand and arm should be clean and antiseptic, and I believe it good practice to administer an antiseptic vaginal douche beforehand.

When the foot has been brought down the extraction of legs, breech and body is effected as already described. Galabin always found it possible to bring down a foot, and even in impacted breech presentations never had occasion to resort to the fillet, blunt-hook, or. forceps, nor were such means ever found necessary in 389 breech-presentations, occurring in 22,591 deliveries in Guy's-Hospital Lying-in Charity. (Galabin, 1886; p. 633.)

In case of a dead child or very difficult extraction from disproportion between child and pelvis, both legs may be brought down, or the cephalotribe may be employed.

In those cases of frank-breech presentation where the hand can not be passed up to the feet, we have to depend upon the following more difficult and dangerous modes of extraction: the finger hooked over the groin; the forceps; the fillet; the blunt-hook; the cephalotribe; expression being employed as an auxiliary in each instance.

As regards traction by the index finger hooked over the groin, my experience teaches me to agree with those authors who believe it is of little value, save when the breech is low down in the pelvic cavity or on the perineum, and even here it will frequently fail, notwithstanding the auxiliary influence of abdominal pressure. Even when the finger can be hooked over the groin, which is frequently difficult and sometimes impossible, the grasp is usually entirely too feeble to overcome any great resistance. The index finger is employed and is passed over the anterior groin, but may alternate from one to the other, using a kind of leverage action, and the external hand may aid the tractile power of the internal hand by grasping it and pulling on it from the wrist. Whenever it is practicable to grasp the child around the back of the breech with the thumb in one groin and the finger in the other, this hold is more secure than when the finger is merely hooked over the groin.

Of all the methods of extracting a frank-breech when a foot can not be secured, manual traction, as just described, is probaby the safest and least likely to injure the child; but unfortunately when the resistance is great it not unfrequently proves too weak or altogether impracticable, and we are compelled to resort to instrumental delivery.

These instrumental methods are three in number, of conservative operations, and I should prefer to resort to them in the following order: first, Tarnier's forceps; second, soft-fillet; third, blunt-hook.

I place the forceps first in order because the fillet is almost invariably so exceedingly difficult to apply, and even when applied is probably not at all safer to the child, and but very little, if any, more liable to effect its delivery.

Such is the experience of Olivier, who has written an exhaustive monograph upon his experimental researches in this subject, and is generally regarded as the latest and best authority.

Although Lachapelle, Chailly, Pajot and Schroeder spoke against the operation, Corradi, Ballochi, Belluzzi, Trelat, Tarnier, Pinard, Ribemont, Agnew, Miles, Lusk, and others, favor the use of forceps in certain cases of frank-breech presentation.

Tarnier's forceps "*should be applied as far as possible to the limbs and not to the pelvis.*"

"Olivier has determined that: 1. The forceps may be applied to the limbs. 2. The hold is firm. 3. No lesion is produced." This is explained by the fact that the legs being thrown up along the front of the child's body form a wedge or cone, the base of which is downwards at the bi-trochanteric line, and that when the blades are applied to the thighs they 1, grasp a part that is less liable to serious injury by compression than the pelvic or abdominal walls of the fœtus with the delicate organs within,and 2, even if they should commence to slip they come upon larger and larger diameters, and are, therefore, less liable to come off entirely.

Whereas, should they be applied to the iliac crests they at once grasp the pelvis at its largest, yet most yielding and most vulnerable part, and as the breech, viewed from behind, tapers down to the nates, should the points of the blades once slip over the yielding iliac crests they come upon smaller and more compressible parts and are, therefore, more liable to slip off than when applied to the limbs.

If the position of the breech is such that the blades cannot be applied over both thighs, they should at least include one, together with the opposite side of the pelvis. Ribemont records three cases of L. S. A. deep, terminated successfully by Tarnier's forceps, and Pinard "states that he has seen Tarnier, with his forceps, seize the pelvis by the sacro-pubic diameter, the genital organs being in the fenestra of one of the blades, and extract an infant without causing any pain." (Parvin, p. 646.)

From the foregoing it will, however, be readily seen that sacro-posterior positions, where the thighs lie to the front, are most favorable for the forceps, while sacro-anterior positions where the thighs lie behind are most favorable for the fillet. But Olivier expressly states that even in sacro-anterior positions the forceps should be applied first, and "if it slips twice in succession, and this is very exceptional, extract by the fillet and use the complementary manœuvre of Lefour — finger in parturient's anus." Lusk says: "the weight of experience is favorable to the forceps as a breech-tractor, while the objections are mainly theoretical." Essentially the same rules that govern the application of the forceps elsewhere apply also here; the greatest care should of course be used in every stage of the operation, and traction should be aided by abdominal pressure.

We now come to the second instrumental means to be employed in the delivery of those cases of breech-presentation in which it is impossible to bring down a leg, viz., the soft fillet. By some the fillet is preferred to the forceps in these cases, but especially on account of the great difficulty of its application and to a less degree its liability to injure the child, I am inclined to agree with those who place the Tarnier forceps first.

A piece of broad tape, a silk handkerchief, a strip of lint or other soft fabric may serve for a fillet, but Galabin prefers a piece of thick-walled india-rubber tubing about the size of the little finger, through which a strong piece of tape is passed and sewn to the tube at each end, the projecting ends of the tape being knotted. Galabin considers that knots in the ends of a fillet facilitate its introduction.

Of course any fillet should be rendered antiseptic and well oiled before being introduced.

As the finger is most convenient, sentient, easiest to manage and altogether safest, it is generally employed to pass the fillet. There are, however, many special instruments (porte-fillet or fillet carrier) for this purpose, probably one of the simplest and best being that of Roberton, which is essentially a flexible male-catheter with stylet carrying a tape. The fillet may be passed over one, usually the anterior, or the other groin, but preferably should be passed over both as the pressure is thereby more evenly distributed.

"It is better, still, to pass the fillet round the child's pelvis in the following way," according to Galabin. "A soft oiled handkerchief may be used for the fillet; a knot is to be tied at two oppo-

site corners. By means of the fore-finger the corner is to be passed from without inward over the flexure of the groin until the knot can be reached between the thighs and drawn down. In the same way the opposite end of the fillet is to be passed from without inward over the other thigh. The centre of the fillet is then slipped up over the buttocks, until it surrounds the sacrum, and traction is made by the ends. In this way the pressure is distributed over both groins and the circumference of the pelvis. If the fillet is passed over one or both thighs only, care must be taken, if the abdomen looks forward, that it does not slip up from the groin to the thigh and so cause fracture of the femur. It is needless to repeat that auxiliary abdominal pressure must be employed with the use of the fillet as with all other means of delivery by traction.

We now come to the third means of instrumental delivery, which is the blunt-hook.

This is so dangerous that it should always be the last conservative means used upon a living child. It is less likely to injure the child if a piece of india-rubber tubing be slipped over it before using. One hand, usually the left, serves as a guide and manipulates within the genital canal, while the other (right) grasps the handle of the hook without.

Being guided by the internal hand the hook is passed up flat over the anterior thigh and turned from without inward so that the instrument lies in the fissure of the groin with the blunt point between the thighs.

Traction should not be made until this is felt, and the internal hand must carefully seek to avoid any injury to the fœtal or maternal soft parts.

It is generally considered unwise to alternate from one thigh to the other with so dangerous an instrument as the blunt-hook. Should the hook fail we are compelled to resort to the cephalotribe.

If the child is dead (best known when the tunis is felt pulseless), the blunt-hook or cephalotribe may take precedence of the forceps or fillet.

Thorough antisepsis should of course be observed in all these operations.

When the breech has been delivered it is grasped in both hands, and the trunk manually extracted as already described.

Abnormalities and monstrosities are to be dealt with on general principles.

Extraction of the Arms:—We now come to the second stage of extraction, or the delivery of the arms.

As already mentioned, if the child's normal attitude of flexion has not been disturbed, this is usually effected spontaneously. If for any reason, however, such as traction upon the limbs, consequent extension of the body and friction of the arms against the pelvic walls, the arms should become more or less extended and fail to be delivered naturally, their delivery should be effected artificially as follows: Deliver that arm first which lies nearest the perineum, 1, because it is lower, hence easier to reach, and 2, because the soft and yielding perineum affords more room for manipulation and descent of the arm. If the arm should not already occupy this position, place it there by direct pressure upon the child's shoulder. While the arm is in this position, the woman being on her back, the left hand of the operator should be used to deliver the left arm of the child and vice versa. The other hand grasps the feet and lifts the child's body upwards and outwards out of the field of operation, while the operating hand rendered antiseptic, of course, passes its four fingers (if the arm be high the entire hand must be introduced) in the vagina over the perineum up along the dorsum of the arm until the elbow is reached.

If the arm be low the fingers may be hooked over the elbow joint at once and the arm drawn down, but if it be high the fingers and thumb should be passed up along the back of and around the humerus, serving as a splint, and the arm be drawn (or wiped) down from behind forwards over the face and chest of the child until it is brought down alongside its body.

If both arms have been extended the hands are now reversed, the child's body being drawn upward to the other

side, the second shoulder is pressed towards the side or perineum or is drawn there by pulling inversely upon the delivered arm, when the above manipulation is repeated.

If ordinary caution be used a fracture of the arm should be a very rare accident, but should it occur it is not very serious (being often but a green-stick fracture); as in a healthy child it will rapidly unite upon the application of a light, simple splint. As this accident is more liable to occur when the arm is thrown back of the head, in such a case Lusk considers it advisable to inform the bystanders of the possibility of its occurrence before attempting its extraction. This peculiarly unfavorable position of the arm is generally brought about by its becoming jammed or caught between the head and pelvis, as the head, drawn tightly down, follows the body in its external rotation. Therefore it is advised to revert the trunk by pulling on the liberated arm or pressing upon the shoulder before attempting the extraction of the arm as above described.

During the extraction of the arms the woman should of course lie upon her back over the edge of the bed in the usual obstetrical operative position and no pressure should be made over the child's head.

Extraction of the head:—We now come to the third and last stage of delivery of the child, viz., extraction of the after-coming head.

On account of the unavoidable compression of the cord between the head and pelvis and the retraction and contraction of the uterus interfering with the fœto-placental circulation, the child is now in great danger and therefore this third act should be accomplished as rapidly as is compatible with safety. Expression is the preferable method. Grasp the child by the feet and elevate its body towards the mother's abdomen while pressure with the other hand or that of an assistant is made over the head through the abdominal walls.

As the head appears at the vulva and the perineum becomes highly distended the hand should be removed from the abdomen the child's body be supported by an assistant if necessary, and by direct pressure against the head it be prevented from escaping too rapidly, its delivery being always under the control of the operator and effected if possible only during the interval between the uterine contractions. This is in my opinion the essential thing to do in "supporting" or more properly called protecting (from violent pressure) the perineum. In occipito-anterior positions of the after-coming head this may also be accomplished by passing the index and middle fingers into the rectum, to press the head forwards, while its exit is regulated by counter pressure with the thumb against the alveolar arch of the superior maxilla. When traction upon the child's body becomes necessary in order to extract its after-coming head (and this of course is instantly recognized) before resorting to any of the various methods of extraction it is very important to know the character of the obstacle or the nature of the difficulty.

Contracted pelvis requires: 1, traction on the body aided by pressure over the head, as will be presently described; 2, forceps; 3, craniotomy. Hydrocephalus, perforation. Should the cervix be retracted around the child's neck we have; 1, digital divulsion; 2, forceps; 3, incision; 4, craniotomy. Craniotomy upon the after-coming head is almost invariably upon the dead child, for its life is soon lost in this dangerous position. Then as Charpentier says: there are four difficulties dependent on the manner in which the head engages:

1. Occiput in front, and head flexed.
2. " " " extended.
3. " behind, " flexed.
4. " " " extended.

The first is decidedly the most favorable position, while those in which the head is extended and the chin caught over any part of the pelvic brim are more unfavorable.

1. As the number of conservative methods for extracting the after-coming head is quite large, I shall confine myself only to the most important, or to those generally considered to be practically the best.

They are only three in number, two

being manual viz., 1, Mauriceau's method 2, the Prague-handgriff, and one instrumental, viz., the forceps.

The Mauriceau method first described by him in 1668, subsequently by Smellie in 1756, and later by Veit in 1874, hence improperly yet more generally known as the Smellie-Veit method, is applicable to the head only when it is in the pelvic cavity. It consists in holding the head flexed with one hand, usually the left, and extracting it by strong traction over the shoulders with the other or right hand, or vice versa. The child staddles or rides upon the arm while two fingers, index and middle, are placed in the canine fossa, one one ither side of the nose; or still better, are hooked in the mouth over the lower jaw in order to hold the head flexed, while the other hand yoked over the shoulders with index and middle fingers on either side of the neck makes the traction. This should be downwards and outwards until the head presses on the perineum, and then upward and outwards being made during the pains and aided by compression.

It is certainly a most convenient, simple and very powerful method and may be employed whenever the mouth can be reached, no matter to what point on the pelvis it may be turned.

When ordinary care is used the danger of dislocating or otherwise injuring the lower jaw has been exaggerated, for Mathews Duncan found that a 56 pounds traction could be put upon it without causing injury, more than one-half of that which can be safely applied through the neck. This method is especially applicable to the head in the pelvic cavity with occiput to the front, but may also be tried in occipito-posterior positions, the line of traction then being downwards and outwards.

In occipito-posterior positions, Lachapelle, Nægelé, Grenser, &c., advise rotation of the head with the hand; the former subsequently employing manual extraction, while the two latter resort to the forceps. Charpentier says: "For our part the only way to obtain a living infant is to apply the forceps, artificially rotate the head, and deliver at once."

In this opinion I concur, for be the chid living or dead, I believe that artificial rotation, either manual or instrumental, and subsequent expression or extraction with the hand or forceps, is preferable to the very difficult and unsightly craniotomy in occipito-posterior positions. When the head is extended and the chin caught over the pelvic brim (2, occiput in front; 4, occiput behind), the Prague handgriff is the manual method usually advised, although it may also be employed for the extraction of the after-coming head when the chin is either below or above the superior strait, that is, when the head is either flexed or extended. This method was taught by Puzos, who died in 1573, although it is generally attributed to Kiewisch, who reintroduced it in 1846. It is thus described: "Place the index and middle fingers of the left hand fork-fashioned upon the nape of the child's neck, with the other hand grasping the lower extremities. The left hand then makes downward traction, and the right hand simultaneously makes traction upon the trunk of the child, elevating the feet as it is delivered in the arc of a circle, which comes finally to rest upon the abdomen of the mother."

Hecker, Martin, Gusserow, Ruge, Spiegelberg record examples of fracture, decapitation, and other accidents, with the Prague method, but "Scanzoni favors the method that saved 117 infants out of 152 delivered at the Prague Maternity." (Cyclop. Obs. and Gyn. Vol. iv., p. 44.)

Finally, "Champetier de Ribes, from a careful study of all these methods and from his own experience, draws the following conclusions: The best method of making the head pass through the pelvis after delivery of the trunk is: 1. Make the inferior maxilla the fulcrum in order to determine the flexion of the head. 2. At the same time backward traction. 3. Associate with these manœuvres abdominal expression, made by the hand of an assistant, not over the entire head, but more particularly over the frontal region of the fœtus in the direction of the superior strait. (Cyclop. Obs. and Gyn. l. c.)

We now come to the third and last conservative method of delivering the

after-coming head by traction, viz., the forceps.

This operation has met with strong opposition, yet I am inclined to believe that the bad results justly due to delay and vainly trying to deliver by other methods at this most critical time, have unjustly been attributed to the forceps: "Schroeder says no living child can be born where the forceps are used; and Shavta says, we might as well banish the forceps from our operative treatment, after manual methods have failed, and resort at once to craniotomy." (Schiedt: Amer. Jour. Obs. Vol. xxi, No. 3, p. 289.)

In brief, I need only say that facts have not only absolutely disproved this teaching, but have demonstrated the forceps to be a perfectly justifiable, and, indeed, one of the best conservative means at our command for the extraction of the after-coming head. Lusk says they should always be at hand in every case of breech-presentation. They may be applied to the head in any position, and are second in preference only to expression and manual extraction. I believe the axis-traction forceps will prove the best for this operation, because of their special advantages, in addition to the well-known powers of other instruments. The rules for the application of the blades and the modus operandi are essentially the same as prevail in other forceps operation, and I believe they should invariably be applied underneath the child's body, although on this point opinions differ.

From the above I would draw the following practical conclusions for our guidance in these cases:

1. Do not interfere with breech-presentations, either before or during labor, until some special indication arises otherwise than the mere occurrence of the presentation.

2. Expression should be the preferable mode of delivery.

3. When this is impracticable, 1, manual traction on the leg; 2, manual traction on the breech; 3, forceps; 4, fillet; 5, blunt-hook; 6, craniotomy, should be selected in the order mentioned.

4. The after-coming head should be delivered: 1, by expression; 2, Mauriceau's method; 3, Prague handgriff; 4, forceps; 5, craniotomy.

6. Treat special complications on general principles.

ACUTE NEPHRITIS IN ADVANCED PREGNANCY.

BY DR. J. I. PENNINGTON,
OF BALTIMORE.

Mrs. H., aged 34, married, has had one living child, at full term, and one premature birth. On the second of January, I was called to see her. She was at this time in the ninth month of her third pregnancy. Her face presented a puffy appearance, her extremities were quite œdematous, pulse feeble and frequent. She complained of headache and nausea, her bowels were costive, and, so far as I could learn, she was not passing a normal quantity of urine.

I was unable at this time to obtain a specimen of her urine for examination, but other symptoms pointed so clearly to a condition of albuminuria, that I assumed such to be the case, and prescribed accordingly. I ordered a full and free purgative, to be followed by a mixture of digitalis and acetate of potash, to be given in proper doses every two hours, and left instructions for her to send me the next morning a small quantity of her urine. This, however, was not done, and I did not visit her again until January 5th, when I found her, as usual, attending to her household duties. Her condition was much the same. The purgative had acted well, and gave her temporary relief, but she had only taken one or two doses of the diuretic mixture. She said it caused nausea, and, therefore, did not take it. I then ordered what is known as cream of tartar lemonade, a mixture that I have found very useful in such cases, to be taken in small quantities during the day, and insisted upon her taking occasionally a dose of

*Read before the Baltimore Medical Association, May 13th, 1889.

the first mixture, which instructions I do not believe were followed.

On June 7th, early in the morning, I was summoned to see her, when for the first time the symptoms of uremic poisoning made their appearance. She was suffering intensely with pain in the head and stomach, with nausea and vomiting. The pain in the stomach being so severe, I was obliged to give her an anodyne. In the afternoon she was better, having slept some during the day.

On the morning of January 8th she grew rapidly worse, the pain in the head became more intense, as also did the paroxysms of pain in the stomach, with frequent attacks of vomiting. She also complained of blindness, not being able to see those in attendance. I ordered a full dose of calomel, hoping to get a prompt and free movement from the bowels, and thereby relieve the head symptoms. I had had a similar experience with her in her last pregnancy, the symptoms being very nearly the same, as I will tell you a little further on.

About three o'clock P. M. she became quiet and went to sleep, which sleep deepened into comatose condition, lasting about three hours, terminating in death.

I was unable at any time to obtain a specimen of her urine for examination, though I tried each day to do so.

Dr. Branham very kindly made a post-mortem examination, and found both kidneys in a state of engorgement, or acute congestion.

In August of 1885, this woman prematurely gave birth to her first child, so far as I could learn at about the seventh month, the child being dead. Her pregnancy was most uncomfortable. I saw her occasionally at my office, but not frequently enough to enable me to say just what caused her discomfort. She soon regained her health after the delivery of the child.

March 15th, 1887, her second child was born at full term.

During the period of this pregnancy, nothing of any consequence occurred until a few days before the birth of the child, when a similar train of symptoms to those described as occurring in her third pregnancy manifested themselves, such as pain in the head and stomach, vomiting, blindness with delirium, &c. Fortunately the pains of labor came on, and in a short time the child was born, after which the uremic symptoms soon disappeared, the delirium, however, continuing for a few days. I will add that she entirely recovered her sight.

The question very naturally arises, what are the causes of puerperal abuminuria. It seems to occur more frequently in first than in subsequent pregnancies.

There are possibly a number of things that may cause albuminuria. No doubt, in a certain number of cases, it may be due to congestion of the venous circulation of the kidneys, caused by pressure of the gravid uterus upon the emulgent veins.

Impoverished condition of the blood may also be a cause, or a sudden exposure to a cool draught of air when the skin is relaxed by perspiration. In the case related this evening, I am inclined to believe pressure to have been the cause of the trouble.

Treatment.—In the treatment of puerperal albuminuria, so far as the acute symptoms are concerned, we should be guided by the same principles as in the treatment of albuminuria occurring from other causes.

Should we fail in giving relief after having judiciously resorted to the various means, such as diaphoretics, diuretics, purgatives, &c., but on the other hand, the symptoms become more alarming, we should unhesitatingly resort to induction of premature labor. I believe all authorities agree on this point. Could I have brought on premature labor in this case, I would have given my patient one more chance for her life. But the last day of her illness, the only day in which there were alarming symptoms, the progress of the disease was so rapid, during the interval between my visits, that there really seemed to be no time for resorting to such a measure.

S. Weir Mitchell has taken time from his busy life to write another book. This time it is a volume of poems, entitled, "The Cup of Youth," published by Houghton, Mifflin & Co., Boston.

Society Reports.

CLINICAL SOCIETY OF MARYLAND.

STATED MEETING HELD MAY 3D, 1889.

The 227th meeting of the Clinical Society of Maryland was called to order by the President, Dr. George H. Rohé, in the chair.

Dr. Frank M. Chisolm was elected a member of the society.

Dr. J. Edwin Michael presented a specimen of tumor of the testicles which had the gross appearance of a sarcoma.

Patient: Male, æt. 62 years. The growth began in the scrotum and grew upward. The patient thought it was a ruptnre, and did not consult any one in reference to it until about three years afterwards. A short while ago he fell into his hands, and he informed the patient that the growth was a testicular tumor, and if left alone it would probably kill him. He finally consented to an operation, and yesterday the growth was removed. To-day he is doing very well, and a good recovery is anticipated.

The case is an interesting one on account of the size of the growth and the fact of its existence for three years. No secondary deposits could anywhere be found. It had grown upward beyond the external abdominal ring, and when he examined it he found that he could get it all away without difficulty. No microscopical examination of it has been made.

Dr. Michael then reported three cases of radical operations for hernia. He described each case in detail, and spoke of the good results obtained. He then discussed the different operations recommended for hernia, and called attention to the points of merit and objections which they presented to him.

Dr. Randolph Winslow showed a specimen of hernial sac which he had removed. Patient was a female, aged 53 years, who suffered from femoral hernia. To the feel it presented a doughy sensation, indicating omentum. Omentum was present, but it was not strangulated. The strangulation was easily relieved before the sac was opened. Two sacs were present, connected by a double neck. The operation was radical so far as it goes at this time. Dr. Michael is not quite fair in his reference to McEwen's operation. He thinks that twisting the sac is good practice, as it gives support to the operation.

Dr. L. McLane Tiffany said that he had done McEwen's operation once with excellent results, though a certain amount of suppuration took place. Patient was a man, aged 60 years, who had carried a part of his intestines in a bag for a number of years. The sac was thick, resembling a large pocket. The cure was excellent. He don't think there is a *best* operation for the cure of hernia. We have to do the one that is best suited for the patient. If a hernia exists for a certain time, the traction of the bowel will exert an influence on the abdominal walls, and the two abdominal rings no longer occupy their relative positions, but lie one behind the other, and there remains no canal at all practically, and, likewise, very little peritoneum. The sac in consequence can be drawn well in from the internal abdominal ring.

Dr. J. W. Chambers said in one case reported by Dr. Michael of congenital hernia, it is very difficult in such a condition to get the sac, and it can not well be done without taking the testicle out with it.

Dr. L. McLane Tiffany said that he had done the operation on a little boy aged 5 years, about 18 months ago. You can very easily cut off part of the peritoneum, making a tunica vaginalis just as nature pinches it off for the same purpose.

Dr. J. E. Michael said that in reference to the operation of McEwen he spoke of a possible objection to it from the funnel-shaped opening that was made, which might give way from too great a strain. Whether it happens or not he is unable to say. He prefers to cut the sac off.

Dr. F. C. Bressler read a paper on traumatic aneurism of the femoral artery, with specimen.

Dr. E. R. Walker presented a specimen of acute yellow atrophy of the liver.

Dr. Saml. C. Chew said: This is the second case of this affection that has been reported in this community, so far as he knew. It is manifestly a very rare disease. A German authority says that only about six hundred cases of it have ever been reported. The case which he had the honor to bring to the notice of the profession a few years ago, and which was verified by autopsy, presented several interesting points. In making a diagnosis there were three other things to be considered than acute yellow atrophy of the liver, viz., malaria, yellow fever and uremic coma, but they were all excluded for the want of sufficient evidence, and this led to the fourth conclusion, which was acute yellow atrophy. The liver weighed 31½ ounces, and microscopic examination showed no liver cells at all.

Dr. J. E. Michael said, that as he had made the autopsy in this case related by Dr. Chew, he wanted to discuss some of the points connected with it. The history of the case here given tonight and the appearance of the specimen are not sufficient in themselves to be a case of acute yellow atrophy. The patient was subjected to a grave operation, the elevation of the temperature was very much like that of septicæmia; the liver is over size for atrophy and the capsule does not present the characteristics that have been described in that condition. In addition an abscess in the psoas muscle was present; there was no jaundice found in the internal organs, which we would expect to find. So he thinks the case resembles one that died more from the symptoms of septicæmia than from acute yellow atrophy.

Dr. E. R. Walker said, that all of these things had passed through his mind but he was unable to answer them. Dr. Chew's case lasted seventeen days, his only lasted five days, and those who have described the disease say that the longer a case lasts the smaller the liver becomes. He then quoted Bartholow and others in describing the pathology of the disease.

Dr. N. G. Keirle said that acute yellow atrophy is certainly a very rare disease. Possibly a man may have a nutmeg liver which may become chronic, it will become smaller; when he comes to die from pneumonia for example his head will become affected. He never saw but one case of acute fatty change, it is a very rare affection.

Dr. Samuel C. Chew said, whether in the case reported by Dr. Walker the operation had anything to do with the change is hard to say; in his case the patient passed a renal calculus and that may have had some effect on his subsequent liver change.

Dr. I. E. Atkinson said, that the average weight of a liver is estimated at 50 ounces. This case does not show the diminution which we would expect in yellow atrophy. He never heard of a case that ran its course in so short a time as five days. We miss here the prodromal symptoms, but we do have symptoms of septicæmia. There is absence of ecchymosis, absence of leucin and tyrosi , absence of the peculiar shriveling of the capsule, mottled appearance, etc. With that evidence he would be inclined to regard the case as one of septicæmia and not of acute atrophy.

W. J. Jones,
Rec. Secretary.

1238 Greenmount Ave.

A Vegetable Substance in the Stomach 12 Years.—Ewald showed a curious specimen at the Berlin Medical Society, May 8th (*Brit. Med. Journal*), from a lady aged 40 to 50. Twelve years before she had an attack of excruciating gastric pain with hematemesis. The present attack came on suddenly with the same symptoms. The blood was partly clotted partly liquid and in it was found the *corpus delicti*, a piece of vegetable or fruit which had remained all that time in the stomach being firmly soldered to the stomach wall by adhesive inflammation. It was cylindrical in shape, 6 cm. in length, with sharp processes and small pendulum-like appendages. It was proven to be of vegetable nature by microscopical examination.

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WILLIAM B. CANFIELD, A.M., M.D., Editor.

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BALTIMORE, JUNE 29, 1889.

Editorial.

SIMPLE CURES.—One thing will strike the thinking physician with surprise, and that is, however, or it might be said, the more intelligent a patient is, the more he likes to be humbugged and the more he can be deceived. Everyone has noticed how soon a patient loses faith if the medicines are not occasionally changed, or if the same line of treatment be too long persisted in, even though it be attended by improvement. As the physician relies on nature for assistance in cure, it follows that his duty is to direct the patient into the most favorable path toward recovery, and, if necessary, let nature work out the rest. Thus it happens that a prescription may be a change of climate and rest. One would think that patients able to travel would be only too glad to go when it is best for them and give up taking drugs, but not so. How often does one hear the complaint that the physician has sent a patient to such or such a place because he did not know how to treat him, or because he wished to get rid of the patient!

The cure is so simple that the patient cannot understand it. He thinks he is being properly treated when he is kept under the physician's charge at home and given medicines and made to take exercise with regularity and with disgust. It is the simplicity of the cure that the average man fails to understand. We all know that when a certain great man mentioned in Holy Writ wished to rid himself of the leprosy how he drove off to the prophet, who was also a healer, and how he pictured to himself the whole scene of his healing, and yet when the prescription was given, or rather sent to him by a servant to go bathe in the river Jordan seven times, the simplicity of the treatment quite upset him and the revulsion from his idea of how he should have been treated to his prescription sent by a servant was so great that it took much persuasion to make him do as he was told and be cured.

Let anyone visit the winter or summer resorts, the water cures and health resorts and they will hear the poor doctors scolded by the very people who are improving without taking medicine. A certain amount of superstition will hang around medicine and so long as this continues so long will physicians treat their patients accordingly.

A PIN IN WHARTON'S DUCT.—Considering the frequency with which thoughtless persons make of their mouths receptacles for pins, it is rather strange that they do not penetrate into the tissues of the mouth more frequently. Dr. Herring (Trans. Mississippi State Med. Association, 1888) describes a case in which a colored woman called upon him for aid, stating that five days before she had got a brass pin into her throat, that one physician had failed to find it, and a second having found it had been unable to extract it. Dr. Herring found the tissues overlying the duct of the right

submaxillary gland very much swollen and exceedingly tender. On pressing the tongue to one side his attention was drawn to a slit near the frenum linguæ, which was the orifice of the duct and exploring it with a delicate probe he had no difficulty in reaching the pin. An attempt to seize its point with a dressing-forceps failed. He then depressed its point, which was toward the opening of the duct, with sufficient force to raise the head toward the mucous membrane of the mouth, and passed a delicate tenaculum through the tissues beneath the pin close to the head. Pulling the tenaculum until the tissues over the head were quite tense, he made a small incision with a bistoury so as to free the head and then with a forceps withdrew the pin from the duct head foremost.

Miscellany.

JOHNSTOWN PHYSICIANS.

Amount subscribed at last issue and sent to Johnstown June 11th.	$169 00
Amount received since June 11, as acknowledged in last issue.	17 00
Dr. Wm. T. Howard. . .	10 00
Dr. Ferd. Reinhard. . .	5 00
	$201 00

This money is sent to the physicians alone of Johnstown.

ADDITIONAL NOTE ON THE TREATMENT OF YELLOW FEVER.—Dr. Geo. M. Sternberg, Surgeon U. S. A., writes to the *Therapeutic Gazette* for June as follows :

I wish to add the following postscript to my paper on the treatment of yellow fever :

I have just received a letter from Dr. Reuben Cleary, an American physician practising in Rio, in which he says, "In all I have treated thirty-four cases of yellow fever, all of them genuine, but as about one-half did not present albumen in the urine nor 'black vomit,' they might be contested, yet they all began with sudden chilliness, then excessive temperature, mostly with dry skin (temperature, 39.9° to 40.5°), which lasted from twelve to seventy-two hours, abating somewhat; tongue whitey yellowish, skin yellow, great hyperæmia of the thoracic integument, some diminution of the urine, gastric uneasiness, and vomiting. In my opinion and that of an experienced Brazilian physician they were undoubted cases of yellow fever. Of the *thirty-four*, I lost only *one*,—that is the one I wrote you about,—and in every case I used your formula steadily throughout. In one case I gave 3 litres. I found it better to use 3 centigrammes of the mercuric bichloride, and gave it in ʒi-doses ice cold. I also controlled the heat with antipyrin or antifebrin, and gave appropriate medicaments for gastric and other symptoms as they presented themselves."

Dr. Sternberg's prescription is as follows :

℞ Sodii bicarb., grammes x (grs. 150);
Hydrag. chloridi corrosiv., centigrammes ii (1/31 gr.);
Aquæ puræ, litre I (I quart). M.

Sig.—50 grammes (about 1¾ oz.) every hour ; to be given *ice cold.*

This Dr. Cleary has modified thus :

℞ Bichlor. hydrag., 03 ;
Bicarb. sodii, 10 ;
Aq. pura, 1000. M.

Sig.—Dose, 2 large tablespoonfuls every hour *ice cold.*

ACUTE INTESTINAL OBSTRUCTION OF TEN DAYS STANDING RELIEVED BY OPERATION.—A. W. Mayo Robson, F. R. C. S., Lecturer on Practical Surgery at the Yorkshire College of the Victoria University, reports in the *Lancet*, of April 20th, 1889, the following case : On October 25th, 1888, he was called to see a woman, who lay upon her back with her knees drawn up, and complaining of paroxysmal pains, beginning on the right side of the abdomen and radiating thence

over it. Irregular peristalsis was visible starting in the right iliac fossa coincidently with the pains. There was no tympanites. The countenance was anxious and haggard, the pulse rapid and feeble. She was vomiting stercoraceous matter freely. There was no sign of external hernia. She had formerly had a right inguinal hernia which had disappeared. The patient had been well till ten days before when she was suddenly seized with right iliac pain, followed by vomiting and marked abdominal tenderness. Later there was a sensation of fulness in the right iliac fossa. The vomiting had been stercoraceous for six days. The bowels had been constipated. The treatment had consisted of enemata and opium. Under full antiseptic precautions (including the spray) and chloroform anæsthesia, an incision, two inches long, was made in the middle line below the umbilicus, bringing into view distended coils of intestines. Two fingers introduced into the right iliac fossa felt something abnormal attached to the parietes one inch above the iliac crest. It became necessary to enlarge the opening to three and a half inches. Now on retracting the right side of the incision, whilst the bowels were held out of the way on the left by a large flat sponge, the abnormality was found to be a coil of small intestine passing into an unusual opening in the parietal peritoneum. On one side of the constriction was distended bowel, while on the other the gut was empty and collapsed. Gentle traction was employed to bring the ring into view before dividing it, but before the blunt end of the hernia knife could be passed through the stricture, the constricted loop escaped and immediately a fæcal odor became perceptible. Immediately sponges were so placed as to prevent soiling of the peritoneum. It was then found that where the small knuckle of bowel, including nearly its entire circumference, had been tightly nipped, ulceration had taken place, and on the sudden withdrawal of the constricted loop the intestine had ruptured to the extent of one-third inch. The peritoneal surface of the bowel was carefully wiped with a carbolized sponge and as the constricted loop presented no signs of gangrene, enterorrhaphy was performed by means of six Lembert sutures, which completely occluded the opening. The part was carefully sponged, the bowel returned, and the parietal wound closed. There was considerable shock which was treated by an atropine injection, hot bottles and blankets. For a few days nutrient injections were used. Towards the end of the first week there was a pretty sharp attack of bronchitis and the temperature rose to 102°, but she was discharged cured in one month. The bowels acted twice on the fourth day and again on the 6th. Vomiting ceased after the operation.

Hypodermatic Injections of Blood in Anæmia. — Westphalen (*Centr. f. Ther.*, *No.* 5, *News*, June 22,) reports a case of extreme anæmia cured by Ziemssen's method, in a man, æt. 36. The number of red corpuscles was only 840,000 per cubic mil. Tonic treatment had previously been used without result. Five ounces of blood were taken from the median vein of a healthy person, being caught in a vessel and defibrinated by stirring with a glass rod, then strained through gauze to remove the larger particles of fibrine, and then injected under the skin of the thighs, 6 or 7 drachms at each puncture. The limbs were then vigorously rubbed and manipulated in the direction of the lymphatic stream. Nothing unpleasant occurred. The pulse fell in 24 hours from 100 to 80. Eight days later the blood contained 1,240,000 red corpuscles in a cubic mil. In one month he was well.

Successful Case of Trephining for Cerebral Hemorrhage.—Mr. Herbert Allingham reported the case and exhibited the patient before the Clinical Society of London, April 12th. (*Lancet*, April 20th.) A man, æt. 40, fell off a tramcar, December 7th, while intoxicated. He complained of pain in left shoulder,

but there was no external sign of injury to the head. He slept well under chloral and bromide, but next morning was drowsy and irritable, and complained of right-headache. No vomiting, no paralysis, pupils equal and reacting to light. Dec. 13th breathing labored and stertorous, and he fell into a stupor. At 6 A. M., Dec. 14th, he had a convulsion, beginning in the muscles of left side of face, the mouth being drawn upwards, and the eyelids moving in clonic spasm; the right eyelids only moved slightly and towards the end of the fit. The muscles of the neck were next affected, the chin being drawn towards the right shoulder; subsequently, the left arm and leg passed into a state of clonic spasm. The eyes were not noticed to deviate to either side. Urine normal, and passed unconsciously between fits. Pupils reacted slightly, the right appeared the larger. No optic neuritis. The fits recurred frequently: if slight only the muscles of the face or face and neck were involved. December 14th, under chloroform, a curved incision was made, ascending from the external angular process of the frontal to the mastoid process, and a large semilunar flap turned down so as to expose the temporal muscle; this muscle was divided from its origin and turned down. A crown of bone was removed over the right fissure of Rolando—that is to say, about 2½ inches behind and 1½ inch above the ext. ang. process. The posterior branch of the middle meningeal artery was exposed. The artery and dura were intact, but the dura bulged and did not pulsate; it was divided, together with the artery, and a large blood-clot was exposed. About 3 ounces of black blood-clot were removed by the finger and irrigator. With a finger in the cavity, the brain was felt to be compressed. The cavity extended forwards and backwards almost as far as the finger could reach. The pia was intact, except at the right frontal lobe, where the cerebral hemisphere was felt to be lacerated and soft. The cavity was well irrigated until the carbolic solution (1 in 40) came out clear. One catgut suture was introduced into the dura, and two drainage tubes inserted, one going upwards the other downwards to the base, the ends being brought out through a hole made in the lower part of the skin flap. The edges of the scalp wound were brought together with silkworm gut sutures, and the whole dressed with carbolic gauze. The next day there was a slight fit, confined to the face. December 16th he was rational and began to move the left leg; wound healthy and slept well; no fits. December 17th, paralysis gone; moved arm and leg well. February 18th he left hospital, having been up about the ward fourteen days. There was no paralysis whatever, he felt quite well, no headache or loss of memory. Mr. Allingham was of opinion this case was unique, as it was one of cerebral hemorrhage, and not due to hemorrhage between skull and dura mater.

Bernhardt on Suspension in Tabes.—B. reports 19 cases with 220 suspensions by Sayre's apparatus (*Deutsche Med. Woch.*, May 16). He regards it as a most valuable therapeutic agent. Almost always it diminished or relieved entirely the lancinating pains, improved the gait, lessened the ataxia, improved the condition of the bladder and also the mental and bodily functions.

Remarkable Effects of Five Grains of Antipyrin.—Charles S. Purdon, M. B., relates the case in the *Brit. Med. Journal* of June 15th. The patient was a man, æt. 50, suffering with sciatica. Instantly after taking the dose there was tingling and burning in the gums, which extended rapidly to the throat and nose, with sneezing, running from eyes and nose, dizziness, blindness, a pin-pricking sensation down each side of the neck, tightness of throat and dyspnœa. One minute after taking, his face appeared swollen and "black" to his wife. The pricking sensation extended rapidly down the right side of chest and abdomen, and was particularly severe in right side of scrotum and right testicle, and also felt in legs and feet, particularly on

the right side. Next there was a sensation as though the thoracic and abdominal organs and the right testicle were drawn upwards, and he fell to the floor, trembling violently, and with cramp in right arm and hand. The physician arrived in fifteen minutes, found him sitting in a chair, with face of a dusky red color; nose, lips and eyelids swollen beyond recognition; eyes suffused and running; breathing hurried and difficult; he was trembling all over violently, and the fingers of his right hand were clenched Pulse scarcely perceptible. Brandy being given he felt better. He spoke in a thick, husky tone, and had dizziness and fulness in the throat. The soft palate was red and swollen, uvula enormously swollen and œdematous, back of pharynx red and swollen. There was no rash. The symptoms gradually subsided, except soreness and fulness in the throat, dysphagia, huskiness and dizziness, which continued till bedtime. He had at intervals a sulphur taste. Next day he was completely recovered, except slight headache and anorexia.

Mr. A. W. Mayo Robson (*Lancet*, April 20th) formulates the following conclusions regarding INTESTINAL OBSTRUCTION: First, that in chronic cases, that is, where obstruction is the prominent symptom, there being no signs of strangulation, medical treatment may relieve, or, if the obstruction be due to fæcal accumulation, may cure; but that in many such cases colotomy, or some other operation, will be so plainly indicated as to leave no doubt concerning what should be done. Secondly, that in cases where acute symptoms supervene on chronic, medical and expectant treatment may at first be wise, but that, if relief do not come rapidly, laparotomy should be performed. Thirdly, that in initially acute cases laparotomy should be performed without loss of time, delay being as dangerous as would be the postponement of kelotomy in strangulated hernia.

Dr. Casati of Forli, Italy, reports three cases of traumatic tetanus cured by hypodermatic injections of hydrochlorate of pylocarpine.

Medical Items.

The leprosy question is becoming one of the questions of the day.

Dr. John S. Billings will receive the Hon. degree of L. L. D., from Oxford University.

Virchow if said to be engaged upon a new edition of his Cellular Pathology.

It is estimated that there is one leper to every 40 of the inhabitants of the Sandwich Islands.

Morell Mackenzie recommends in acute coryza as snuff:

℞. Morphiæ Sulph., gr.ii
Bismuth Subnitrat., ʒi

Schnitzler recommends the following gargle in the stubborn forms of angina follicularis:

℞ Creolin, 1 or 2 parts,
Distilled or Peppermint water, 100 to 500 parts.

Professor T. G. Richardson has resigned the chair of Surgery in Tulane University, New Orleans, on account of ill-health, after a continuous service in that institution of thirty-one years.

Drs. Eugene F. Cordell, T. Barton Brune and I. E. Atkinson have been appointed by the Medical and Chirurgical Faculty of Md., as delegates to the convention for the revision of the Pharmacopœia, which will meet next May in Washington.

A case of Catheter Retention for twenty-two years is reported in the *Lancet*. There was the usual history of gonorrhœa, followed by stricture, perineal abscess and fistula. During all these years the patient had gone about with a soft catheter in his urethra, suffering from no bad effects whatever. From time to time he replaced the old by a new catheter.

Professor Frank Donaldson, M. D., whose active connection with the Faculty of Physic of the University of Maryland ceased last autumn, has been made Emeritus Clinical Professor of Diseases of the Throat and Chest in that school. The Faculty have honored themselves in paying this compliment to one who has been so long and so favorably known in connection with the school.

Resection of the liver was first performed by Professor Loreta of Bologna, Aug. 26, 1887, and a memorial tablet in commemoration of the event has just been unveiled in the Anatomical Theatre there. Professor Ruggi has repeated the operation successfully and the patient, a woman, was exhibited at the sixth Italian Surgical Congress, which has just met in Bologna.

Original Articles

A CASE OF MEMBRANOUS CROUP WITH RECOVERY.

BY GEORGE JOHNSON, M. D.,
OF FREDERICK, MD.

Walter McD——, 7 years of age, a well developed boy of Anglo Saxon parentage, played in the garden late in the afternoon of a damp Spring day (May 15th, 1889). About 6 P. M. he ate a hearty supper but soon after commenced to droop; complained of pain in the throat when going to bed, and had fever at 8 P. M. He waked about 10 P. M. in a paroxysm of croup, and was treated by his parents with stimulating liniment to front of neck, and alum, lobelia and ipecac, internally. No vomiting was produced, and the attack becoming more severe I was summoned at 11 P. M., I gave quinine bisulph. gr. v., and free vomiting soon occurred, probably precipitated by the bitter taste of the quinine together with the impression of the nauseants previously given. Respiration continuing difficult and paroxysms of croup recurring I ordered

℞. Hydrarg. chlor. mit.
Pulv. ipecac. āā gr. ss,

every 2nd hour.

May 16th, 9 A. M., voice very hoarse, less cough but fever higher, respiration distressingly labored, and general condition worse; tonsils swollen and covered with a thin bluish-gray membrane. No swelling of the cervical glands or cellular tissue. I ordered emplast. cantharid. 2x5 inches to front of neck; hydrarg. chlor. mit. gr. x, to be followed in an hour by potass. chlorat. gr. x in powdered sugar; this latter to be repeated hourly.

12 noon. Voice whispering, other symptoms unchanged. Blister had drawn thoroughly. I gave hydrarg. subsulph. flav. gr. i, causing free vomiting.

2 P. M. Symptoms still persisting I gave hydrarg. subsulph. flav. gr. ss. Patient purged freely, and vomited with violent retching. Copious perspiration with general relaxation, breathing less labored, fever declining, cough less, voice totally lost. I ordered tinct. opii gutt. v, to be repeated after each evacuation of the bowels, and discontinued potass. chlorat.

4. P. M. Respiration improving and fever less, I ordered

℞. Tinct. Ferri chlorid. f ʒ iii
Glycerinae " f ʒ ss
Aquae q. s. ad f ʒ ii
M et Sig.—Teaspoonful *undiluted* hourly.

Each dose to be preceded by a gill of strong animal soup or milk and followed by orange juice or slices of banana to lessen the after taste of the medicine. Patient to be awakened if necessary, to take the medicine regularly.

10 P. M. Medicine has been taken with religious accuracy. Patient's bowels became quiet after three doses of laudanum, and sleep was continuous except when wakened and made to take the food and medicine; but little fever, cough less stridulous, no voice.

May 17th, 9 A. M. No fever, cough less frequent but more painful, breathing less oppressed, no voice, fauces less swollen and evidently clearing of deposit. Medicine continued.

12 noon. Complains of pain in the throat when swallowing or coughing, other symptoms improved, can whisper. Treatment continued.

4 P. M. Progressive improvement; ordered iron mixture every second hour and a teaspoonful of emuls. ol. morrhuæ et calcis between each dose.

May 18th, 9 A. M. Patient had a good night. Respiration quiet and easy except under excitement or exertion, voice with effort could be raised to a loud whisper, fauces nearly clear of membrane, slight epistaxis. Ordered iron mixture every fourth hour and emulsion intervening between doses. Patient enjoyed eggs for breakfast and eats fruit ad libitum.

5. P. M. Bright all day. Continuous improvement. No change in treatment.

May 19th, 9 A. M. Slight epistaxis in

the night, otherwise much improved, voice distinct on effort though weak, fauces clear of deposit. Continued remedies during the day, omitting them at night, and adding water to the iron mixture when given.

May 20th to 22nd. General debility and weakness of voice still exist but patient is convalescing and sitting up, complains of nothing save soreness of blistered neck. Continue remedies three times a day until in usual health.

May 25th. Patient rapidly building up. Discontinue visits.

In reporting this case I desire to emphasize certain points of diagnosis, pathology and treatment.

This was a sharply defined case of Primary, Membranous or True Croup. Although two younger children came into the room at pleasure during the day, and slept at night in an adjoining apartment with open door; neither had the disease. The seizure was sudden, in robust health, after exposure to damp and cold in the overheated condition of active play. There was at no time glandular enlargement, o cellular infiltration. The exudation of lymph occurred synchronously in the fauces and larynx, and none appeared at any time upon the blistered surface of the neck.

There was no cachexia, and no paretic or renal complication; nor was there any nasal trouble, except slight epistaxis, which ceased spontaneously. The depressing, specific, constitutional poison of diphtheria was absent, and hence no hesitation was felt in the use of the blister.

Dr. O'Dwyer states (Reference Handbook of the Medical Sciences, vol 4, page 421) that in the majority of the autopsies he has witnessed in croup the main cause of the obstruction was the intense swelling of the mucous membrane and submucous tissues, while the fibrinous deposit on the surface played an unimportant part in this respect. From this most valuable observation, it is easy to understand the potent action for good of thorough and timely vesication.

In this case it was unmistakable. In six hours from the application of the blister the relief to the respiration began and was increasingly evident from hour to hour notwithstanding that the aphonia persisted for three days after. The swelling of the mucous and submucous tissues of the larynx being reduced by the vesication, the time was given for the action of remedies favoring disintegration of the membrane and preventing its reproduction.

A careful study of this case confirms the belief, founded upon experience in others of the same disease, that the blister was a main factor in the fortunate issue. I am equally sure that in the early feverish stage of the disease the exhibition of a mercurial cathartic in large doses is of great value.

It will be observed that the iron was given in large doses and but slightly diluted, after the manner of Dr. N. E. Davies of England (*Lancet* April 10th, 1886). In addition to the constitional effect the local impression of the remedy thus administered has in my experience been of more service than either the spray or application by brush, of it or other remedies, while gastric irritation is avoided by the nutrients given before each dose. This frequent feeding also assists in sustaining the patient's strength. The emuls. ol. morrhuæ et calcis, when given while desquamation of the fibrinous deposit is occurring, has in my observation assisted greatly the rapid restoration of the denuded mucous membrane to its normal condition.

I report this case with the hope, that it will serve to encourage the general practitioner to exhaust medical resources before having recourse to surgery. If these fail and carbonæmia or waning strength threaten fatal issue, tracheotomy and intubation still remain as a last resort.

To the general practitioner, however, these operative proceedures must almost of necessity be the last resort. The emergency is perhaps presented to him without reliable assistants or trained nurses, in badly lighted rooms and with scanty or possibly no previous experience in operating.

The probability of successful issue cannot be determined by the statistics of hospital surgeons operating frequently

and with every facility at command. The circumstances of the case, as well as the gravity of the symptoms must be considered in determining when medicine must give place to surgery.

Let us hope that individual painstaking observation, and mutual comparison of experience may render such resort less frequently necessary.

ELECTRO-CATAPHORESIS.*

BY DR. J. I. PENNINGTON.
OF BALTIMORE.

Dr. Frederick Peterson, read a paper before the Academy of Medicine, of New York, on "Electro-Cataphoresis as a Therapeutic Measure," relating some experiments which he had made in the treatment of neuralgia.

His mode of procedure was to saturate the positive pole of the galvanic battery with a solution of the drug he desired to introduce and place it over the painful point, with the negative pole near by, then turn on the current from a few cells, using it for ten or fifteen minutes, from which he claims to have caused relief of deep seated pain of a most severe neuralgia. He also suggested that the same action could be made use for the production of local anæsthesia or minor surgical operations.

I had a case of a lady who, in last December, had a deep-seated gluteal abscess, which I lanced at that time. It failed to heal properly. A sinus about two inches deep remained, and gave her considerable trouble. I thought best to open the place thoroughly but she was unwilling to have it done without an anæsthetic, and her husband did not wish her to take chloroform, and determined to try the means above suggested. I washed the part with a little chloroform to remove the oily particles from the skin, and saturated a piece of absorbent cotton and applied the positive pole of a Barrett battery, using a current of twenty cells for fifteen minutes, after which I introduced a gum director, then a curved bistery, and made a deep cut of two inches in length. I then introduced a dilator and examined the wound carefully, making several other smaller cuts, the lady making no resistance whatever. The next day I inquired of her particularly as to the pain. She said she experienced no pain. She knew I was cutting, could feel that I was doing so, but it was not painful.

*Read before the Baltimore Medical Association, May 13th, 1889.

POISONING BY ANTIFEBRIN.*

BY JAMES E. GIBBONS, M. D,,
OF BALTIMORE, MD.

I was called Saturday March 2nd, 1889, about 6 P. M., to see Miss K—, who had taken a powder for the relief of headache at 10 A. M., on same day. I found her condition really alarming, lips and fingernails blue, temperature 97°, pulse 60, compressible, skin cool but no perspiration. Slight nausea increased if she attempted to sit up, warm water was given freely and same was vomited. A copy of the ℞ was shown me which proved to be

℞ Antifebrin ʒ iij
ft chart iij

S.—One in water and repeat in 2 hours, if not relieved.

She still complained of severe headache and if dose had been repeated in 2 hours as directed, I feel confident death would have been the result. I ordered brandy at once and then ordered tr. belladonnæ iv gtts. every half hour, returned in 2 hours, after four doses had been given, found some improvement, continued belladonna; in 2 hours more returned when condition was very much improved lips and fingernails less purple and pulse with more volume, continued belladonna until morning at intervals of 2 hours, when all danger seemed over, lips aud fingernails normal. Pu-

*Read before the Baltimore Medical Association, April 22d, 1889.

pils dilated by belladonna, (when first called no perceptible deviation in pupils from normal was perceptible).

Belladonna was given because as first pointed out by Brown-Séquard it stimulates the capillary circulation and thus relieves congestion.

It is the remedy for congestion.

I need not enter into any description of antifebrin, It is one of the aniline products the composition and uses of which you all understand as well as I can tell you. I may say it is one of the new remedies which is claimed to do almost everything. The minimum dose is 2 grs. maximum 15 grs., though it is said to have been given in 3 i doses. It is claimed to be anti-epileptic, supplanting the bromides and iodides, antipyretic, supplanting all other remedies quinine, antipyrin, etc., nervine and anodyne—anti-rheumatic supplanting salicylates, iodides, alkalies, etc. Of course few if any of these claims have been proven correct.

I now wish to call attention to a practice which, if possible, should be prevented, that of druggists giving copies of prescriptions. The dose which so nearly caused the death of my patient, was put up from a copy made by a druggist. Many ℞'s are copied and loaned by patients to their friends, which is dangerous for the one using them and unjust to the medical profession. A ℞ should be regarded by the druggist as an order to prepare a certain medicine and nothing more, he should under no circumstances make a copy. There is no way to explain some mistakes, as in this case. The original ℞ in this case was:

℞ Antipyrin ʒ ss
ft chart iij

S.—One every 2 hours.

Signed by a well-known M. D.
Druggist copied thus:

℞ Antifebrin ʒ iij
ft chart iij

S.—One every 2 hours.

This mistake was made by a druggist, who is regarded as competent and careful.

TWO CASES OF ALBUMINURIA COMPLICATING PREGNANCY.*

BY J. M. HUNDLEY, M. D.
OF BALTIMORE.

Case 1.—Mrs. P., aged 28, primipara, was taken in labor July 6th, 1886. I had been consulted by her a few weeks previous to her confinement, at which time I learned that her feet were swollen, had headache constantly and loss of appetite; her face and lower limbs were swollen slightly. A sample of her urine was procured, and upon examination found loaded with albumen. I ordered her to take tincture of the chloride of iron, to drink freely of cream of tartar lemonade, and an occasional dose of salts. She did not carry out the treatment fully, as everything she would take nauseated her. I watched the case with much anxiety, and was greatly relieved at the birth of the child, thinking all danger past. But on the second day after confinement her condition became alarming, marked dyspnœa, with subcrepitant râles, heard over both lungs; respiration 30 to the minute; pulse 120; temperature normal; urine almost suppressed, and vomiting everything put into her stomach; skin moist and cold. I ordered ⅓ grain doses elaterium every thirty minutes till bowels were moved freely, and teaspoonful doses of infusion of digitalis, with acetate of potash, every four hours. After the bowels were moved the dyspnœa became less pronounced. On the next day the kidneys began to act, and on examining the urine it was still found to be heavily loaded with albumen. She took nothing in the way of nourishment for two days, after which time she retained small quantities of milk. Much of the infusion of digitalis and potash she vomited. Her condition

*Read before the Baltimore Medical Association, May 13th, 1889.

remained much the same for nearly a week when she began to improve. The urine was examined from time to time, and in two weeks not a trace of albumen could be found. There were no convulsions or any nervous symptom at any time.

Case 2.—Mrs. DeP., aged 31, multipara, consulted me at my office, November 19th, 1888. She complained of headache, neuralgic pains about the body, defective vision, nausea in the morning, loss of appetite, and feeling generally miserable. Upon inquiry I found that the above symptoms had been present more or less for a month, and that she passed but little urine. Her lower extremities were œdematous, and her face slightly swollen. She was then pregnant, and at about the seventh month. I ordered for her tincture of the chloride of iron, an occasional saline purgative, and to drink freely of cream of tartar lemonade. I examined her urine the next day, and found it almost all albumen. On the 23d, three days after her visit to my office, I was hurriedly called to see her. On my arrival, I found two physicians in attendance, and learned that she had had eight or nine convulsions. The convulsions were controlled by hypodermics of morphia and atropia, and chloroform inhalation. I now took charge of the case, assisted by one of the physicians, Dr. Kloman. Knowing the condition of her urine, and in view of the gravity of the case, we decided to induce premature labor. The os was dilated with the fingers, and then Barnes' dilators were used. We finally succeeded in dilating the cervix sufficiently to apply forceps, which was done under chloroform, and the child was delivered. After delivery another hypodermic was given to insure sleep and quiet. I was with my patient from 10 A. M. to 5 P. M. At 8 o'clock I saw her again; she was quiet, but still unconscious. The child was delivered alive, and lived two and a half days. My patient had no more convulsions, and on the 26th awoke as from a sleep, not knowing what had occurred, and did not know she had been delivered or sick. Injection of sublimate solution was used once a day by myself, washing out the uterus as well as the vagina. There was no fever at any time. I gave her $\frac{1}{15}$ grain doses elaterium every half hour until bowels were moved freely, tincture of iron three times a day, and cream of tartar lemonade, encouraging her to drink freely of it. Her sole nourishment was skimmed milk. On December 6th, thirteen days after delivery; all swelling of limbs and face had disappeared. She gained strength slowly, had headaches and neuralgic pains about body for several weeks. Could not see to read or sew for six weeks. Albumen remained in the urine until February 9th, about ten weeks after confinement. After the more acute symptoms had subsided, I allowed her a more generous diet than that usually allowed in Bright's disease, and the iron, digitalis and occasional purgatives were continued from time to time.

The cause of puerperal albuminuria cannot always be satisfactorily explained. It may be from pressure of the gravid uterus upon the vessels of the kidney, together with an already super-albuminous blood. Such a state of things existing, and they do with every pregnant woman, it only takes in addition some very slight cause. But why one woman with albumen in her urine goes to term without an unfavorable symptom, and another with just the same condition of things apparently, should be attacked with puerperal eclampsia, the most formidable of all diseases with which the obstetrician has to deal, is still an unsettled point. As you will see from case first, there were symptoms and conditions commonly met with in Bright's disease—albumen and the other symptoms prior to confinement, effusion into the lung, dyspnœa, suppressed urine and uncontrollable nausea, and vomiting after confinement, but no convulsions.

In case second, the urine had been longer albuminous than in case first, at least the symptoms had been longer present. She had every symptom peculiar to Bright's disease, and at the seventh month of pregnancy had eight or nine convulsions.

The etiology of puerperal eclampsia is still obscure. There have been from time to time various theories set forth as to

the cause or causes, but so far they have all been more or less unsatisfactory. As early as 1843, Leber pointed out the fact that the urine of patients suffering from puerperal convulsions was generally highly charged with albumen, and that is true to-day. At that time it was thought the key to the etiology of the disease had been found; and this view was supported by such men as Broün, Frerichs, and many others. The toxic element was thought to be the retention in the blood of urea or carbonate of ammonia. But as time went on, accumulated evidence showed that not every woman with albumen in her urine had convulsions, and many cases were recorded, especially by Braxton Hicks, where albumen was only found in the urine after the convulsions. He says: "that the nearly simultaneous appearance of albuminuria and convulsions—and it is admitted that the two are almost invariably combined—must then be explained in one of three ways:

1st.—That the convulsions are the cause of the nephritis.

2d.—That the convulsions and the nephritis are produced by the same cause, e. g.—some detrimental ingredient circulating in the blood, irritating both the cerebro-spinal system and other organs at the same time.

3d.—That the highly congested state of the venous system, induced by the spasm of the glottis in eclampsia, is able to produce the kidney complication.

Traube and Rosenstein refer the occurrence of eclampsia to acute cerebral anæmia, resulting from changes in the blood incident to pregnancy. They account for anæmia thus: with an increased arterial tension favored by an hypertrophied heart, the normal occurrence in pregnancy, a temporary hyperæmia of the brain is first produced, which is soon followed by serous effusion into the cerebral tissues, resulting in pressure on its minute vessels and consequent anæmia.

I believe the theory set forth by MacDonald best accords with our present knowledge of puerperal eclampsia. He says; "that eclampsia is caused by irritation of the vaso-motor center, in consequence of an anæmic condition of the blood, produced by the retention in it of excrementitious matters which the kidneys ought to have removed, this overstimulation resulting in anæmia of the deeper seated nerve centres and consequent convulsions. But the question still remains unanswered, which was set forth in the first part of this paper—why will one woman having albumen in her urine, and many other symptoms indicative of some deleterious substance circulating in her blood, be confined and make a good recovery, or, as in my first case, have no trouble of any seriousness until the day following her confinement, or as in my second case taken with convulsions at the 7th month of pregnancy, in the morning while in bed without any exciting cause whatever? Can it be that varying amounts of this toxic element, be it what it may, urea, carbonate of ammonia, or other excrementitious matter circulating in the blood, produce when in small amounts the symptoms albuminuria, in a more concentrated form, convulsions.

But what is of greater practical value to the physician and his patient is the treatment. When albumen is found in the urine of a pregnant woman the case should be watched with much anxiety, and every means used to remove the condition. It is impossible to remove the pressure upon the renal vessels by the gravid uterus, but much can be done to relieve the consequent congestion by administering saline diuretics, such as acetate of potash, or the bitartrate, the latter being best given in the form of cream of tartar lemonade. The bowels should be acted upon, and best by the c. jalap powder, or $\frac{1}{10}$ gr. doses elaterium. I like small doses, its action can be controlled and is easily administered. As a tonic as well as a diuretic I know of nothing better than the tincture of the chloride of iron. The diet should be light and easy of assimilation, milk forming the larger part. Meats rich in nitrogenous matter should be interdicted. By such a course we may often mitigate, if not entirely remove the attendant symptoms, and carry the patient to term. If however the case goes from bad to worse, the albumen steadily increasing, strength failing, gen-

eral œdema and lastly convulsions, what is the proper course to pursue? It has not been a long way back when such a state of things existed the physician was advised to delay active interference; to give chloral, bromides, diuretics, purgatives and enjoin absolute quiet. How far such a course was successful I do not know, but with my limited experience I can but believe it unnecessarily greatly endangered the life of the mother, which should be the first consideration.

Given a case growing worse day by day I think it best to induce premature labor irrespective of the length of time of pregnancy—and if convulsions come on there should no longer be any question.

Society Reports.

BALTIMORE MEDICAL ASSOCIATION.

STATED MEETING HELD APRIL 22D, 1889.

Dr. J. E. Gibbons read a paper, entitled,

POISONING BY ANTIFEBRIN.

(See page 183.)

Dr. E. G. Waters said the case belongs to that remarkable class in which mistakes occur, no matter how careful one is. No one appreciates the druggist's position more than he. The druggist often stands between the physician and patient, correcting the former's clerical errors, and he condones their action in so doing. A friend of his had a prescription put up over 200 times for different persons without consulting him. It deserves the careful attention of physicians. Druggist and clerk unhesitatingly prescribing over the counter ought to be remedied.

Dr. Jos. T. Smith coincided with Dr. Waters' views. Such mistakes as that referred to by Dr. Gibbons might readily be made, and the druggist ought to protect themselves. Many druggists would like to avoid prescribing, but cannot well do so while others persist in it.

Dr. J. D. Kremien writes "Do not repeat" on his prescriptions.

Dr. Randolph Winslow thinks it has been decided by the courts that the prescription belongs to the patient. He thinks Dr. Smith too radical if he thinks simple remedies ought not to be dispensed without a prescription. He thinks quinine, castor oil, etc., might readily be sold. Drugs like antipyrin ought to be classed as poisons, and sold by prescription only. He gives smaller doses of these now than formerly, with better results.

Dr. Geo. H. Rohé agreed with Dr. Winslow. He does not carry around any stock prescriptions, and sometimes forgets the exact proportion used, so when the patient is doing well under the remedy and no change is needed, it is easy to say "repeat." He gave gr.iij of antifebrin in a case of pneumonia, which was followed by considerable collapse, when gr. v. of antipyrin had failed to produce any effect.

Dr. H. H. Biedler agreed with Drs. Rohé and Winslow. He thinks the fault largely lies with the physician in telling patients just what they are taking. Doctors ought to keep their remedies to themselves. You can hardly go into a family but patients tell you just what treatment their former physician used.

Dr. Thos. A. Ashby thinks if druggists should unfold their grievances there would be another tale to tell. The druggist protects the physician in many ways, especially in correcting careless prescriptions. Still he thinks there is room for a reformation of relations. Dr. Ashby thinks it culpable to prescribe by numbers and private marks, intelligible to only one druggist. It is often inconvenient to patients to have to go to a particular druggist. Besides, it is very bad practice.

Dr. J. E. Gibbons said, in answer to a query, there was no sweating from the immense dose given his patient. The temperature was abnormal when he saw her—97°—five hours after taking the drug.

Dr. Winslow said some drug-stores,

on the other hand, have a habit of forcing practice to favored physicians.

Dr. Smith thinks druggists ought not to make copies. If patients want duplicates, let them go to the fountain head.

Dr. J. L. Ingle thinks patients have a right to the original prescription.

Dr. Geo. H. Rohé thinks druggist have a right to the original for protection as no court would accept *a copy* in evidence. He thinks there is no financial loss to physicians through counter-prescribing or by repeating prescriptions handed about by patients to friends. He thinks it far more important to have prescriptions carefully compounded. If the same prescription be given to a dozen druggists and the results compared, only two or three would be found correct. He has been much criticised by druggists for having on his prescription cards the directions for compounding an ointment.

Dr. Thos. B. Evans related a case of

CONGENITAL HYDROCEPHALUS

which he said was of no importance except for the operation to relieve the pressure. The operation has often been successfully performed. He tried all other remedies without result until the head measured 30 inches in circumference, 22 inches from os frontis to occiput and 21 inches, transverse.

He strapped the head and put the child on calomel without effecting a decrease. The head became so large that it bulged up between the straps, which were then removed and the head rubbed with ung. hydrarg., meanwhile keeping up the internal treatment. He after-tried potass. iodid., etc., fruitlessly. He finally told the mother that tapping was the only means that offered any hope of relief, and that, not much. Dr. H. H. Biedler was called in to aid. A quart of water was withdrawn; in a week's time the head was as large as ever, when it was again tapped. That had to be done twice again, at intervals of three weeks. Still, there was some slight sign of improvement. Finally, the child had a convulsion and died. He thinks he would operate soon in another case.

The effusion had sp. gr. of 1009 and showed some sugar and some albumen.

Dr. Randolph Winslow said Dr. Evans' treatment was rational but should have been done sooner. As far as the pathology of the case goes, he thinks it due to an obliteration of the canal connecting with the spinal cord.

Dr. J. W. Chambers said he thinks probably it is rather due to a chronic inflammation of the lining membrane. Most of these cases are tuberculous. It is well to keep the parts drained. It might give relief until death, by convulsions occurs.

Dr H. H. Beidler thinks Dr. Evans underestimates the amount of fluid withdrawn. At the first tapping it was 1 quart, at the second 2 quarts and at the third 1½ gallons. He too thinks the sooner the operation is performed the better. He has had 18 or 20 cases, operating on 13; in some, obtaining temporary good results. An interesting fact to him is that though the patient does well after being tapped and there is no irritation caused by the needle, yet sudden death follows.

HENRY B. GWYNN, M.D.,

Recording and Reporting Secretary,

1837 W. Lexington Street.

CALOMEL AND DIGITALIS IN ASCITES.—In cases of ascites following cirrhosis of the liver, in which there are no other complications apart from cardiac affections, Dr. Schwass, in the *Centralbl. f. klin. Med.*, May 25, 1889., advises the use of calomel and digitalis in the following formula:

℞.—Calomel. . . . 2 grains.
Digitalis. . . . ¾ grain.—M.

The above dose every three hours for a week.

The diuretic action of this combination is far greater than that of either drug singly and can also be tolerated longer and better than either drug alone. —*Med. News.*

MARYLAND MEDICAL JOURNAL

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BALTIMORE, JULY 6, 1889.

Editorial.

INDUCTION OF PREMATURE LABOR IN BRIGHT'S DISEASE. — In scarcely any medical society or association does the subject of Bright's disease escape discussion, and barren are usually the results of the discussion. At the American Medical Association last week on the section in Practice of Medicine, Dr. James Tyson, of Philadelphia, read a paper on "The Induction of Premature Labor in Bright's Disease," and at the Baltimore Medical Association, of this city, Dr. J. B. Hundley read a paper on a similar subject. The great trouble with such cases is that it is generally impossible to say whether the renal trouble had existed before labor, before conception, or even before marriage, and even if albuminuria or casts are found at such an early date, it is not easy to foretell the results. Dr. Tyson suggested that every young woman contemplating matrimony should have her urine examined. This sounds very well, but if the urine be found abnormal it is not very likely that a marriage would be deferred or prevented. Again, if albuminuria and casts be found in the urine of a newly married woman, what will be the advice. The physician may suggest that she do not conceive, but it is hardly probable that the couple will follow his advice. Both writers suggest that premature labor be induced. This really seems to be the most easily carried out treatment, and it will often succeed, but perhaps the best manner of following this out would be to let the woman carry the child until some really serious symptom presents itself, meanwhile watching her general health and urinary secretion. It then will sometimes happen that after one, two or more prematurely induced labors that she will go to full term, and by bringing forth her first child gratify the most ardent wish of herself and husband.

THE CARE OF CHILDREN IN SUMMER.— The warm and oppressive weather of the summer months is felt by no one so much as by the children of the poorer classes. The number of cases of diarrhœa, dysentery, etc., that fall to every physician's lot in summer is abundant proof of this. A glance at the mortality lists for this or any other large city of this climate will show also how the little ones of all classes sicken and die as soon as the thermometer reaches a certain point. Fortunately, benevolent men and women have so given their time and money, that it is in the power of the poorest to escape from the city for a short time. We may give our astringent and tonic mixtures, but if the children were properly bathed and given a little fresh air occasionally, the chances for life would be much greater. Week before last 50 per cent. of the deaths in this city were in children under one year, and last week the percentage was even greater. We have sanitariums, summer excursions, parks, excursion boats, etc., and if physicians attending poor sick children would only, in addition to the ordinary medical advice and drugs, tell the usually ignorant parents how the children could escape the heat of the city occasionally, and let the poor

know of the good charities for children in summer, sickness would often be avoided, cured, and the mortality lists would not show such a high death rate as they do now.

Correspondence.

THE CAUSATION AND TREATMENT OF PNEUMONIA.

Rockville, Md., June 19, 1889.

Editor Maryland Medical Journal:

Dear Sir:—I am glad to see the subject of pneumonia discussed in your Journal, and hope it will continue to be discussed until we arrive at some satisfactory conclusions in regard to it. Ten years ago gonorrhœa and pneumonia were the great bug bears with which I had to contend, bus thanks to antiseptics, the former has ceased to give me any trouble, and the latter might probably be treated in the same way with as much satisfaction, if the disease was within reach. I was convinced many years ago that pneumonia was communicable from one person to another, and I believe would be as contagious as diphtheria if the lungs were as much exposed as the tonsils. I believe that cold aids in the production of pneumonia by inflaming the lungs and putting them in a condition to receive it just as it does the tonsils for the reception of diphtheritic germs. I feel convinced, as I think almost every one else does, that cold is not the sole cause of the disease under discussion. Pine seeds are constantly floating in the air but they only take root when they fall upon suitable ground, that is land too poor to produce grass and consequently bare, so also must the pneumonia germs come in contact with an inflamed or raw surface before they can take root. It is needless to dwell on the causes of pneumonia, as they cannot be prevented, but the treatment is all important. Pneumonia, for the most part, attacks persons predisposed to tuberculosis or those broken down in health and I think should be treated like typhoid fever with mercury, quinine and whiskey I do not know what the experience of others has been, but I have never lost a patient with this disease who was made to breathe cold air, the atmostphere of the room being kept as cold as the weather would admit of, whilst fever was present.

Yours truly,

Edward Anderson.

THE AMERICAN MEDICAL ASSOCIATION.

Editor Maryland Medical Journal:

Dear Sir:—With last week closed the fortieth annual session of the American Medical Association. The custom of selecting prominent summer resorts in the warm season for holding conventions, has the tendency to attract many who would not care to go to a city. With Newport many appear now to be satisfied, although if the members had turned out in force as they used to do, the accommodations of the Newport hotels could not have satisfied all, and as it was many were crowded. Still anyone who recollects with a feeling of discomfort the hotels of Washington during the International Congress, will feel that the Ocean and Aquidneck houses of Newport, were well managed and certainly did every thing to make their guests comfortable. Many went to Newport this time with a feeling that there would be more pleasure than profit to be derived from the meeting. This was in part true. The meeting was not up to the standard of other meetings. The best men in many departments were either absent or silent. The sections on Practice, Laryngology and Surgery did perhaps the best work. It was unfortunate that the entertainments offered by the town physicians were often poorly attended because they were always put at the same time as section work. The general sessions were held daily from 9 to 12 A. M., and the sections met in the afternoon from 2 or 3 until 6. Of course all officers and participating members of sections felt bound to be present, and

hence many who visited Newport for the first time, went home without having much idea of this most beautiful resort. To the Rhode Island Medical Society, is much praise due for the attention they gave to the strangers, always looking out for their welfare and comfort. On Monday night preceding the meeting the American Editors held a meeting and Tuesday afternoon a most enjoyable and select clam-bake. This was under the auspices of that energetic and popular man Dr. Wm. C. Wile, editor of the *New England Medical Monthly*. Baltimore was represented by Drs. I. E. Atkinson, Wm. Osler, Wm. H. Welch, Thos. Opie, T. A. Latimer, Arthur Williams, Wm. B. Canfield, Geo. H. Rohé, H. H. Biedler, John H. Hocking, Thomas B. Evans, John N. Mackenzie and J. J. Chisolm. Dr. E. M. Moore, of Rochester, was elected president for the next year and Nashville, Tenn., was selected as the next place of meeting in May 1890.

Obituary.

PROF. ROBT. ULTZMANN, M. D.,

VIENNA.

Another luminary of the Vienna School has just passed away in the person of Professor Robert Ultzmann. Whilst on a trip to the Semmering with his family on Whitsunday, the distinguished physician was struck with apoplexy; he was immediately brought home, and died in his own house at 8.30 P. M., on the same day.

Robert Ultzmann was born at Kaschan, in Hungary, on September 30th, 1842. He received his preliminary education in that town, and in 1861 began his medical studies at Vienna. At that time the Vienna medical faculty included such men as Rokitansky, Skoda, Oppolzer, Hyrtl, Brücke, Hebra and others. In 1867, Ultzmann, took his M.D. degree. Chemistry had always been a favorite study of his, and his labors were largely devoted to physico-chemical and microscopical investigations on the urine. Shortly after graduation Ultzmann became Assistant in the Pathologico-Chemical Institution of the General Hospital, and in 1869 he was admitted as an "operator" in the surgical clinic of the late Professor von Dumreicher.

In 1872 Ultzmann became *privat docent* of the diseases of the urinary apparatus, and in 1886 he was appointed Extraordinary Professor. His first scientific essays were published in the *Wiener medizinische Presse*, at that time under the editorship of Professor Schnitzler. In 1871 Ultzmann published his great work, *On the Examination of the Urine with Special Reference to the Diseases of the Urinary Apparatus*, together with an excellent atlas of physiologico-pathological urinary sediments, which he published in conjunction with K. B. Hofmann.

Ultzmann, moreover, wrote a great number of monographs on the neuroses of the male and female sexual apparatus; on Hæmaturia, Pyuria, on Potentia Cœundi et Generandi, on Polyuria, etc. One of his chief works was *Urinary Concretions in Man, and the Causes of their Development.* A work which he had commenced in the *Deutsche Chirurgie* of Billroth and Lücke remains unfinished

Ultzmann was a very successful operator. He introduced several modifications in litholapaxy, chiefly in the way of simplification of instruments, and was a zealous but discriminating advocate of suprapubic cystotomy. Ultzmann's ability as a teacher was equal to his talent as an investigator. His works on chemico-microscopy and micro-photography were admired in the Paris Universal Exhibition, on which occasion he was named an Officier de l'Académie Française.

In addition to his professional attainments, Ultzmann was a man of many accomplishments. He was an excellent musician and singer, and had no ordinary skill with the pencil and the brush. His amiable character made him loved by all who knew him, and his premature death has caused universal regret in Vienna.—*Brit. Med. Journal.*

Reviews, Books and Pamphlets.

The Operations of Surgery. A Systematic Hand-book for Practitioners, Students, and Hospital Surgeons. By W. H. A. Jacobson, F. R. C. S., Assistant Surgeon, Guy's Hospital, etc. With Illustrations. Philadelphia: P. Blakiston, Son & Co., 1889. Pp. 1006. Price $5.

On first looking at the title of the above work, one is inclined to wonder if the traditional long felt want is invoked as its exciting cause, for there are quite a number of operative surgery treatises already in existence, and some of them of very recent date. Turning to the preface, the reader learns that the "book is the outcome of a strong belief, which I have held for many years, that a work on operative surgery which aimed at being more comprehensive in scope and fuller in detail than those already published would be of service to practitioners and students," and so the author gives the standard by which he is to be judged. The multiplication of operative measures during the past decade, the legitimate result of confidence in antisepsis, renders it quite impossible for any book, short of cyclopædic dimensions, to tell more than a portion of what is known on the subject of surgical operations; and to bring a book to a serviceable size means that the author shall choose and reject according to his best judgment.

In the book before us this difficult feat seems to have been done extremely well, directions being brought to date in all important measures, while those still sub judice are accompanied by corresponding statements. Much more than just how to operate is given in the text; directions when to operate, as well as which operation to do, are clearly stated in many cases, so much so, indeed, as to justify the belief that the book is a much better guide to the practice of surgery than many works of more comprehensive title. The discussion of diagnosis as bearing upon choice of operation, as well as the results to be obtained, is always clear and deserves much praise. There are two things in the book which will be agreeably received in this country, apart from its intrinsic merit; one is the frequent reference to American work, the Medical and Surgical History of the War, and the Transactions of the American Surgical Association being frequently quoted; the other is the dedication to Mr. Arthur Durham, one of the invited guests at the late Congress of American Physicians and Surgeons, who made many friends during a short visit.

The Diagnosis and Treatment of Extra-Uterine Pregnancy. By John Strahan, M. D., etc. Being the Jenk's Prize Essay of the College of Physicians of Philadelphia. Philadelphia. 1889. P. Blakiston, Son & Co.

Of the many remarkable essays which have been submitted to the consideration of the medical profession within the last few years, the one mentioned above may be fairly regarded as the most remarkable.

The subject is one which is without doubt most engrossing to the minds of all gynecologists and obstetricians. The judges in the competition are men who are well-known throughout the whole country; the author though we have never heard of him, is endorsed by the judges in very laudatory terms; and as a consequence of all this something quite remarkable is naturally to be anticipated. The essay is remarkable. It is remarkable in being an exposition of Mr. Tait's work that lacks all his force and terseness of expression. It is remarkable in the ignorance and prejudice which are shown in regard to American work. It is remarkable for the number and inaccesssibility of authorities that are quoted. But, indeed, it is very difficult to criticize this work of Dr. Strahan, for the construction of his sentences is so peculiar that in many cases it is difficult to understand him, and the opinions expressed in its pages differ so much from each other that it is impossible in many instances to really tell what he does mean.

It would be gratifying to read some

of the rejected essays in order to determine what ground the committee had for awarding the prize to Dr. Strahan.

Cyclopedia of the Diseases of Children, Medical and Surgical. The Articles written especially for the Work by American, British and Canadian Authors. Edidted by JOHN M. KEATING, M. D. Vol. I. Illustrated. Philadelphia: J. B. Lippincott Company. 1889. Pp. 982. Price, $5,00.

The value of special works on any subject needs no emphasis. These are the works which are sought, and consulted when looking up the literature of a subject, and they rarely fail to be of some value. This the first volume after a brief preface by the editor, opens with a very readable introductory chapter to the whole work by Dr. A, Jacobi, and his contribution together with most of the other forty are characterized by the charm of brevity, some of them inded too short to be of great value. Jacobi simply runs over the points of development and speaks of the importance of the study of the diseases of children. "To my knowledge, there is no school in this country which lays the least stress on that branch of instruction." He saves himself by the first three words of the quotation. There is at least one school here which lays great stress on that branch as the students at the finals find out to their sorrow. But this is a little of that provincialism which characterizes many New Yorkers. They know nothing outside of New York. The arrangement of this first volume is in two parts, one containing general subjects and one the fevers and miasmatic diseases. The writers are many of them well-known and many obscure and as is often the case the obscure writer in the endeavor to become famous has done his work well. The topographical anatomy of infancy is excellent and the illustrations reproduced from photographs of the child standing are very clear, while those of the preparation are very poor and might be well exchanged for good diagrams or copied cuts. He remarks that "tied tongue," is not so often met with as is commonly supposed, some may doubt this. The chapter by Angel Money on the physiological development of infancy is old and interesting. Preyer of Jena was probably the pioneer in this direction. For the first ten days after birth the infant's blood may contain nucleated red corpuscles. The Diagnosis by Finlayson may be reduced to a good knowledge of anatomy and common sense. In Shakespeare's article on bacteriology he describes the old dish glass plates, cooling aparatus and cover for culture plates, but does not mention the Esmarch tubes which are so much more convenient and less liable to infection. The Case of the Child at Birth is a very important chapter for young physicians. The hackneyed subject of infant feeding is treated with great care. Dr. S. S. Adams' chapter on Diet after Weaning is a mo t formidable affair containing list of meals, etc. The Pathology and Hygiene of Puberty by Madden is one of the most important chapters in the book. The chapter on Fever might be considered superfluous. A child has a fever at the slightest provocation. Most of the articles are by Philadelphians. On the whole the set promises to be very useful and with the three remaining volumes to appear, will make up a treatise on children's diseases more lasting than many books now published.

Diabetes: its Cause and Permanent Cure. From the Standpoint of Experience and Scientific Investigation. By EMIL SCHNÉE, M. D., Consulting Physician at Carlsbad, etc. Translated from the German by R. L. Tafel, A. M., Ph. D. English Edition, revised and enlarged by the Author. Philadelphia: P. Blakiston, Son & Co., 1889. Pp. xv–215. Price, $2.

This is by a man who, as he says, after thirty years' study has found that diabetes is curable, and he proclaims the cure in large capitals and italics. In the first place he makes the distinction between glycosuria and diabetes, which every student knows, and "the great mystery" as he calls it, "never before discovered by anyone," is that hereditary syphilis

must be taken into account in the causation of diabetes. Here is one sentence from the modest author. "The fact that I have succeeded in tracing the fundamental cause of diabetes to a hereditary luetic (syphilitic) disposition lets a flood of light into the chaotic darkness of diabetes." Oh! shades of Frerichs! His mode of treatment is to do as others have done before him, to rely on diet, but he gives an abundant diet. The book is badly translated by a man who is not an M. D. It is a wonder how a publisher could be so imposed on. When there are so many excellent and saleable foreign works still untranslated, it is a pity to see such trash floated on the market.

A Treatise on Hernia. The Radical Cure by the Use of the Buried Antiseptic Animal Suture. By HENRY O. MARCY, A. M., M. D., LL. D., etc. Detroit: George S. Davis. 1889. Pp. 251. "The Physicians' Leisure Library." Price, 25 cents.

We believe that no man should be allowed to practise medicine who is not perfectly capable of operating doing a tracheotomy or operating for strangulated hernia at half an hours notice. These are operations of urgency. The hours or even moments are golden and unless the glass can be reversed the sands of life will soon have run out. In operating for strangulated hernia a radical cure at the same time ought in most cases to be attempted.

Dr. Marcy has written an instructive book, but it is a book not calculated so much for the busy practitioner who wants to know in a few clear and exact terms just how to operate and cure his patient, as it is for the surgeon who is quite familiar already with the subject and would like to know as well what other surgeons think of this or that point about which a difference of opinion exists.

The book lacks directness, that first of surgical qualities next to judgment. We are nowhere told exactly how to operate and how to proceed after the operation is finished in a clear and continuous way, beginning with the patient in bed with his strangulated hernia, and ending with the cured individual on his feet. Whoever writes a medical or surgical work on treatment should "show his hand" and say, "I have done this operation so and so many times, at such dates, on patient of such an age having so and so many cures, deaths and failures." This does not yet appear in Dr. Marcy's book. The cuts are good, and we are glad to see the book.

It is a good compilation; that is, written, from all we see in the work to the contrary, from a little experience, and a good deal of reading on the subject. The price is within the reach of anyone, and there is much valuable information gathered together on 'The Radical Cure of Hernia.'"

Lectures on Nervous Diseases from the Standpoint of General and Special Localization, and the Later Methods Employed in the Diagnosis and Treatment of These Affections. By AMBROSE L. RANNEY, A. M., M. D. Profusely Illustated with original diagrams and sketches in color by the author; carefully selected wood cuts and reproduced photographs of typical cases. Philadelphia: F. A. Davis, 1888. Pp. 778. Price, $5.50.

This book is the outcome of fourteen years' experience as a teacher of medicine in general, and of nervous diseases in particular. It is divided into seven sections. The plates, which are principally diagrammatic, are of great use in following the text of the complicated subject. In the section on "functional" nervous diseases, the subjects of "eye defect" and "eye strain" are fully discussed. The final section, given to electricity and a glossary of neurological terms, closes the volume. The book is well printed.

Electricity and the Methods of its Employment in Removing Superfluous Hair and other Facial Blemishes. By PLYM. S. HAYES, A. M., M. D., late Professor of Chemistry and Toxicology Woman's Medical College; Prof. of Analytical Chemistry, Chicago College of Pharmacy; Prof. of Gynecology and of Electro-Therapeutics, Chicago Polyclinic, etc. Chicago: W. T. Keener, 1889, Pp. 128.

This is a small but very clearly written manual on the removal of superfluous hair and nævi. The author has evidently had great experience in his work, and the book will be of great use to the beginner, but of little advantage to the specialist. The usual appendix on "Dermatological Don'ts" is added.

Elements of Histology. By E. KLEIN, M. D., F. R. S., Lecturer on General Anatomy and Physiology in the Medical School of St. Bartholomew's Hospital, London. Illustrated with 194 engravings. New and enlarged Edition. Philadelphia: Lea Brothers & Co., 1889. Pp. 368. Price, $1.75.

All teachers of Normal Histology who have noticed the enormous number of books in French and German, and the lack of a good elementary book in English, will welcome this little manual of Klein. In spite of the wail that investigators are giving too much attention to bacteriology and are neglecting histology, histology has not stood still. The study of karyokinesis, peripheral nerve-endings. etc., proves this. The book is well illustrated with diagrammatic and true drawings, many of them belonging to this author and many copied. As a student's aid it will prove very useful, even its compact form making it very portable.

Lectures on Bright's Disease. By ROBERT SAUNDBY, M. D., Edin., Fellow of the Royal College of Physicians, London, etc. With Fifty Illustrations. New York: E. B. Treat, 1889. Pp. vi–290. Price, $2.75.

Although Saundby is so well known as an authority on renal diseases, still the issue of another book on Bright's disease, by even such a man, may be considered by some unnecessary. The book is well written, goes over the whole subject in a perfunctory way, and winds up with a few words on treatment, which are worth reading, because the subject of clothing and climate in this connection is introduced, and little notice is taken of drugs. The price of the book is much too high.

An Elementary Treatise on Human Anatomy. By JOSEPH LEIDY, M.D., LL.D., Professor of Human and Comparative Anatomy and Zoology in the University of Pennsylvania, etc., etc. Second edition. Rewritten, with 495 Illustrations. Philadelphia: J. B. Lippincott Co., 1889. Pp. 950. Price, $6.00

Twenty-eight years have passed since the first edition of this book was issued, and in that time the author has become perhaps the greatest American anatomist, so that a second edition of his anatomy is worthy of notice, if for this reason alone. It is doubtful if it is a good plan to render the anatomical terms into English. If this is done, every author will have his own expression for a part. In these days when medical students should have a fair knowledge of Latin and Greek, as well as the modern languages, the anatomical terms should be as easy or easier to memorize than the English ones. The plates are too small for use in the dissecting room.

A Guide to Therapeutics and Materia Medica. By ROBERT FARQUHARSON, M.P., M.D. Edin., F.R.C.P. Lond., late Lecturer on Materia Medica at St. Mary's Hospital, Medical School, etc. Fourth American, from the Fourth English, edition. Enlarged so as to include all preparations officinal in the U. S. Pharmacopœia, by Frank Woodbury, A.M., M.D., Fellow of the College of Physicians of Philadelphia, etc. Philadelphia: Lea Brothers & Co., 1889. Pp. 598. Price, $2.50.

This book evidently has some value,

or it would not have been run through three editions. There are so many works of the same character, and many by Americans much more readable, that it seems hard to say where this book finds its place.

Diphtheria: its Nature and Treatment. By C. E. Billington, M.D., and *Intubation in Croup*, and other Acute and Chronic Forms of Stenosis of the Larynx. By Joseph O'Dwyer, M. D. Octavo, 326 pages. Price, muslin, $2.50. New York: William Wood & Co., 1889.

At first sight this book seems superfluous, but on further examination it shows itself to be a very carefully prepared and well written book. The literature of the subject is fully given in chronological order, and the treatment is by no means neglected. The subject of intubation does not need much room. Almost all the work so recently done and printed in the journals has been collected here by the pioneer in successful intubation.

Atlas of Venereal and Skin Diseases. With original text. By Prince A. Morrow, M.D. New York: William Wood & Co., 1889. Fasciculus XIII, XIV and XV.

This part is up to the high standard of preceding parts of this work. The illustrations are from good cases, and are ubundant enough to render the text clear. With part XV the Atlas is complete, and when bound will make an invaluable work for study and reference.

A Clinical Atlas of Venereal and Skin Diseases, including Diagnosis, Prognosis, and Treatment. By Robert W. Taylor, A.M., M.D., Surgeon to Charity Hospital, New York, and to the Department of Venereal and Skin Diseases of the New York Hospital, late President of the American Dermatological Association. Illustrated with One Hundred and Ninety-two Figures, many of them Life Size, on Fifty-eight beautifully colored Plates. Also many large and carefully executed Engravings through the Text. Parts V and VI. Diseases of the Skin. Philadelphia: Lea Brothers & Co., 1889.

This is a most excellent Atlas, profusely illustrated with life like illustrations. To the student of dermatology who has not the facilities of a large and varied clinic, this book is indispensable.

Manuale de Anatomia degli Organi Nervosi Centrali dell' Uomo ad Uso de' Medici e degli Studenti di Medicina per il Dottor Giovanni Mingazzini Libero Docente Nell' Università di Roma Roma. Alberte Piccolo. 1889. Pp. 123.

In this manual the author, who has given his professional life to the study of the brain and nervous system, has brought together in a compact form our knowledge of the subject as obtained from the works of Schwalbe, Edinger, Toldt, Gowers, Betcherew, Golgi and others, and has added the result of his own careful study. His methods of research are principally: 1. Embryological. 2. Method of secondary degeneration. 3. Comparative anatomy method. 4. Method of serial section of the brain and spinal cord well hardened and stained. The little book which has been issued for students, as well as practitioners, covers an amount of work which one would scarcely appreciate without a careful study of it. As it deals with one of the most important parts of anatomy, macroscopical and microscopical in light of the most recent advances, it makes a most valuable addition to any library, and a translation in English, if undertaken at once, would probably be appreciated by a large number of English reading neurologists.

Synopsis of Human Anatomy, being a complete Compend of Anatomy, including the Anatomy of the Viscera and various tables. By James K. Young, M. D., Instructor in Orphopædic Surgery, and Assistant Demonstrator of Surgery in the University of

Pennsylvania, etc. Philadelphia and London: F. A. Davis, Publisher, 1889. Pp. 393. Price, $1.40, net.

A System of Obstetrics, by American Authors. Edited by BARTON COOKE HIRST, M. D., Associate Professor of Obstetrics in the University of Pennsylvania. Volume II. Illustrated with 221 Engravings on wood. Philadelphia: Lea Brothers & Co. 1889. Pp. 854.

Immunity through Leucomaines. By EUSEBIO GUELL BACIGALUPI. Translated from the Second French edition by R. F. Rafael, M. D. New York: J. H. Vail & Co. 1889. Pp. 170.

A Treatise on Surgery, its Principles Practice. By T. HOLMES M. A. Cantab. Consulting Surgeon to St.George's Hospital, etc., London. With 428 illustrations. Fifth Edition edited by T. Pickering Pick. Philadelphia: Lea Brothers & Co. 1889. Pp. 1008. Price, cloth $6,00, leather $7,00.

Woods' Medical and Surgical Monographs. Vol. II. No. 3. *General Orthopedics, including Orthopedic Surgery.* By DR. AUGUST SCHREIBER, Surgeon-in-chief to the Surgical Division of the Augsburg Hospital. Vol. III, No. 1. *Cancer and Cancerous Diseases. by* SIR SPENCER WELLS, Bart., F. R. C. S. *Cardiac Dyspnœa and Cardiac Asthma*, by Dr. S. VON BASCH. *The Influence of Menstruation and of the Pathological Condition of the Uterus on Cutaneous Diseases*, by DR. L. GRELLETY. *Tension as met with in Surgical Practice; Inflammation of Bone, Cranial and Intra-Cranial Injury*, by T. BRYANT, F. R. C. S. *Antisepsis and its Relation to Bacteriology*, by DR. J. NEUDORFER. New York: WM. Wood & Co. July 1889. $10,00 a year, single copies $1,00.

Extra-Uterine Pregnancy: I. *Its Pathology.* By FRANKLIN TOWNSEND, M.D. II. *Its. Diagnosis.* By JOSEPH PRICE, M.D. III. *Its Treatment.* By. E. E. MONTGOMERY, M.D. IV. *Observations —Clinical, Pathological and Surgical.* By W. H. WATHEN, M.D. V. *A Critique of Its Management.* By J. M. BALDY, M.D. VI. *The Technique of the Operation.* By JOHN B. DEAVER, M. D. VII. *Its Management when the Fetus Survives Tubal Rupture and goes on to the Period of Viability.* By L. S. MCMURTRY, M.D. VIII. *Its Treatment (concluded).* By A. VANDER VEER, M.D. A Discussion. From the Transactions of the American Association of Obstetricians and Gynecologists, 1888. Together with an Editorial Review of Tait's *Ectopic Pregnancy and Pelvic Hematocele*, from the Buffalo Medical and Surgical Journal. Philadelphia: Wm. J. Dornan, 1889. Price, 75 cents.

On Spasmodic Urethral Stricture from Anal Fissure, by L. BOLTON BANGS, M. D., Surgeon to St. Luke's and Charity Hospital, New York. Reprinted from *The Medical Record*, January 19, 1889.

Is the Ovarian Cell Pathononomic? by W. A. EDWARDS, M. D., San Diego, Cal. Extracted from the *American Journal of the Medical Sciences*, for April 1882.

Fees in Hospitals. By HENRY J. BIGELOW. *The Boston Medical and Surgical Journal*, April 18, 1880.

Scarlatina Otitis. By CHARLES H. MAY, M.D. From *The American Journal of Obstetrics*, April, 1889.

A Résumé of Experience at the Aural Clinic of Prof. Herman Schwartze, in Halle, Germany. By CHARLES H. MAY. From *The New York Medical Journal*, May 25, 1889.

Is More Conservatism Desired in the Treatment of the Joint Disease in

Chiildren. By A. B. Judson, M. D., Orthepædic Surgeon to the Out-Patient Department of the New York Hospital. Reprinted from *The Medical News*, May 18, 1889.

Annual Address of the President of the Philadelphia Obstetrical Society. By Prof. Theophilus Parvin, M. D. Reprinted from *Annals of Gynecology*, Boston, April, 1889.

The Perineum; Its Anatomy, Physiology and Method of Restoration after Injury, by Henry O. Marcy, A. M., M. D., LL. D., of Boston. From Transactions of American Association of Obstetricians and Gynecologists, September 1888.

A Clinical Study on Alopecia Areata and its Treatment, by L. Duncan Bulkley, A. M., M. D., New York. The *New York Medical Record*, March 2, 1889.

On the Value of Frequently Repeated Doses of Arsenic in the Treatment of Bullous Diseases of Skin, especially in Children, by L. Duncan Bulkley, A. M., M. D., New York. The *New York Medical Journal*, April 13, 1889.

On Unusual Methods of Acquiring Syphilis, with Reports of Cases, by L. Duncan Bulkley, A. M., M D., New York. *The Medical News*, March 2 and 9, 1889.

The Galvanic Treatment of Fibro-Myomata. By A. H. Buckmaster, M.D., Assistant Surgeon to St. Peter's Hospital, etc. Prize Essay of the Alumni Association of the Long Island College Hospital for 1888. Reprinted from *Brooklyn Medical Journal*, Nov.—Dec., 1888.

So-Called "Varicocele" in the Female. By Henry C. Coe, M.D., M.R.C.S. Reprint. New York, 1889.

A New Principle in the Surgery of the Bladder. By Otis K. Newell, M.D. Reprinted from the *Boston Medical and Surgical Journal.*

The Diagnosis of Tumors of the Bladder and Stone with the Cystoscope. By Otis K. Newell, M.D. Reprinted from the *Boston Medical and Surgical Journal.*

Water Supplies of Illinois and the Pollution of its Streams. By John H. Rauch, M. D. Preliminary report of the Illinois State Board of Health.

De la Lobéline dans la Thérapeutique de l'Asthme, Mémoire présenté au 1er Congrès Brésilien de Médecine et Brésilien de Médecine et Chirurgie, et lu, devant la même Congrès à la Séance du 15 Septembre 1888 par le Dr. Silva Nunes, *Rio de Janeiro* 1889.

Transactions of the New York State Medical Association for the year 1888. Volume V.

Scribner's Magazine for June and July, 1889.

A new series of popular articles on the Practical Applications of Electricity is begun in the June number. Professor C. F. Brackett of Princeton opens the series with an article on "Electricity in the Service of Man." When a man is thoroughly at home on a scientific subject, it is not always easy for him to express himself in a way that the public can understand him. Professor Brackett has written an excellent article for the student in electricity, but for one unacquainted with the subject, it is far from clear. Many parts are stated without explanation and the readers knowledge of a certain amount of electricity is taken for granted. This is unfortunate for without a clear start the remaining articles will be uninteligible.

Beef-Tea Fallacy.—There is no article of diet for the sick which has been more over-rated than the one designated as above. At least ninety-five out of every hundred of the public, including medical men, believe that beef-tea contains all the nourishment of the beef from which it is made; or at any rate they order it and trust to it as though it did. In many long and wasting diseases in which the battle between life and death depends upon nourishment of the patient we frequently find both patients and attendants depending almost entirely on the watery part of the beef, or on the water in which it has been soaked or boiled. Let any of our readers who wish to ascertain how widespread this belief is ask a hundred or so of their patients, "What do you do with the beef from which beef-tea has been made?" and they will with few exceptions and generally with surprise reply, "Why, throw it out of course!"

The writer well remembers the surprise with which the ladies of the Diet Dispensary in this city received his recommendation to make this beef into meat cakes with the addition of potatoes, onions, pepper and salt. The suggestion was accepted, and thus from twenty to fifty pounds of the beefsteak was saved from destruction daily, and a great many hungry families were thereby satisfied. The number of pounds of good meat annually wasted all over the world must number many hundreds of thousands. No one ever thinks of feeding a patient on the water in which eggs have been poached. Yet the difference, in the opinion of those who have studied the subject, is not so very great. In beef-tea you have none of the albumen, none of the fat, and only a little gelatin with a solution of salts. In fact, dogs fed on the strongest beef-tea only die after about the same period of time as those fed on water alone. These last experiments were made so long ago that we forget where they were reported. All that can be said in its favor is that it is a pleasant stimulant, and consequently finds its proper place in acute and depressing cases in which the patient can be trusted to live on his own tissues for a short time. In many cases patients soon tire of it, and can hardly be induced to swallow it, while in others it causes severe diarrhœa. It is possible, too, that owing to the gelatin, which has been chosen by bacteriologists as the best material with which to make culture fluids, it may favor the progress of such diseases as are characterized by the growth of microbes in the digestive tract. As we stated in a former article on typhoid fever, the temperature seems to range one degree higher when the patients are fed on beef-tea.

Perhaps in most cases it would be better to throw away the beef-tea and give the patient the beef, properly masticated or artificially digested.—*Canada Medical Record.*

An Antiseptic Mouthwash.—Drs. Galippe and Malassez have found the following mouthwash most valuable, as well as agreeable:

℞.—Alcohol . . .	370	parts.
Carbolic acid .	10	"
Thymol . . .	5	"
Oil of peppermint	15	"
Tincture of anise	100	" —M.

This mixture, which may be colored with a little tincture of cochineal, should be used every morning and evening in conjunction with a weak solution of boric acid.—*Deutsche med. Wochenschr.*, May 23; 1889.—*Med. News.*

A Hitherto Unobserved Effect of the Salicylates.—In the case of a middle-aged lady, after several doses of 1-2 gms. sodium salicylate, administered at intervals of two hours, marked contraction of the pupils ensued, with loss of reaction to light. At the same time rumbling in the ears, deafness, and headache were experienced. The myosis ensued within eight hours after the beginning of treatment, and disappeared only thirty hours after the taking of the last dose.—*The Practitioner*, January, 1889.

Professor von Zehender, the well-known Ophthalmologist of Rostock, celebrated his seventieth birthday on May 21st.

Medical Items.

Dr. Breisky, of Vienna, who was so ill, has died.

There has been an epidemic of trichinosis at Lille, France, from eating pörk.

All the Medical Societies have adjourned until the Autumn.

Strangely enough the number of Medical men in France is on the decrease: 18,000 in 1848, 11,000 now.

Professor Du Bois-Reymond has been elected Corresponding member by the Swedish Academy of Sciences.

The American Neurological Association met at the West End Hotel, Long Branch, on June 26th, 27th and 28th.

The British Medical Journal announces the death of Dr. Leonard Charles Wooldridge, of Guy's Hospital, London.

Dr. Oscar J. Coskery, Professor of Surgery in the College of Physicians and Surgeons, died yesterday after a lingering illness.

Dr, Joseph Lloyd Martin, a prominent and highly respected homœopathic physician, of this city, died this week after a short illness.

Dr. Henry M. Hurd, of Pontiac, Mich., announces the daily press, has accepted the office of superintendent of the Johns Hopkins Hospital.

The Weekly Medical Review, of St. Louis, announces that on the first of July it will be enlarged to the size of the *New York Medical Journal.*

The French Association for the Advancement of Science meets at Paris, August 8th to 14th. The Medical Section ts presided over by M. Trélat.

The *New York Medical Record*, with its usual enterprise and push, had a corps of special correspondents at the American Medical Association last week.

The very praiseworthy and desirable movement is being made in England to introduce the study of shorthand as a practical help to the medical student.

The next meeting of the American Dermatological Association will be held at Boston, on Tuesday, Wednesday and Thursday, September 17, 18 and 19, 1889.

The Queen has been pleased to appoint Richard Quain, M.D., LL.D., F.R.S., Fellow of the Royal College of Physicians, to be one of her Majesty's Physicians Extraordinary.

In the Chamber of Deputies at Rome, the legislature was urged to take steps to reclaim the valuable land in the Roman Campagna, and among the speakers on the floor were Drs. Tommasi-Crudeli and Guido Baccelli.

The labors of the jury appointed to award a prize for the best plan for workmen's baths at Berlin are in full progress. Professor Robert Koch, director of the Hygiene Institute here, has taken a keen interest in the matter.

Dr. John Guitéras, of the U. S. Marine Hospital Service, is authority for the statement that the City of Havana has had an annual epidemic of yellow fever for over one hundred years. July, August and September are the fatal months.

The well-known chemist, Professor August Wilhelm von Hofmann, who was for twenty years professor of the Royal College of Chemistry in London. has been appointed Corresponding Member by the Vienna Academy of Sciences.

A Russian contemporary states that Dr. Gamaleia, who some time ago resigned the directorship of the Bacteriological Station at Odessa has expressed his willingness to resume that position. The authorities have, however, declined the offer.

Prof. James N. McLane has been elected president of the College of Physicians and Surgeons in place of the late Dr. John C. Dalton, and Prof. Thomas M. Markoe, vice-president. At the recent commencement of the college, the graduating class numbered one hundred and sixty-six.

The death has been announced of Dr. Owen Rees, F. R. S., Physician Extraordinary to the Queen. Dr. Rees has been a member of the Council, and subsequently Senior Censor, of the College of Physicians, Goulstonian Lecturer in 1845, Croonian Lecturer in 1857, and delivered the Harveian Oration in 1869.

The Medical Press Co., limited, of Philadelphia, publisher of *The Times and Register*, has absorbed the *Polyclinic*. If the line of demarcation does not soon appear, and the absorption disease continues, Philadelphia will soon have but one good journal, and thus in the survival of the fittest she will follow the example of other cities,

Since the last issue $5 additional have been subscribed to the fund for the Johnstown Physicians. The total amount thus received is $206, of which $169 was sent on June 11th, and the remaining $37 has just been sent. Those who have so kindly subscribed will please note that it was sent to the twenty surviving physicians of Johnstown alone.

Original Articles

CONSIDERATIONS CONCERNING SOME EXTERNAL SOURCES OF INFECTION IN THEIR BEARING ON PREVENTIVE MEDICINE.*

BY WILLIAM H. WELCH, M. D.,

Professor of Pathology, Johns Hopkins University.

No department of medicine has been cultivated in recent years with such zeal and with such fruitful results as that relating to the causes of infectious diseases. The most important of these results for preventive medicine and for the welfare of mankind is the knowledge that a large proportion of the causes of sickness and death are removable.

It is evident that efforts to preserve health will be most intelligently and effectually applied when they are based upon an accurate and full knowledge of the agencies which cause disease. Public and private hygiene, however, cannot and fortunately has not waited for the full light of that day, whose dawn has only begun to appear, when we shall have a clear insight into the causation of preventable diseases. Cleanliness and comfort demand that means shall be taken to render pure the ground on which we live, the air which we breathe, and the water and food with which we are supplied, and we must meet these needs without waiting to learn just what relation infectious agents bear to the earth, air, water and food.

It is a fortunate circumstance that modern sanitation has been controlled so largely by the belief in the dependence of endemic and epidemic diseases upon organic impurities in the soil and in the water. Incomplete and even erroneous in many respects as are the views which have prevailed concerning the origin and spread of epidemic diseases by the decomposition of organic substances, the sanitary measures which have been directed toward the removal of filth have achieved great conquests in limiting the development and extension of many infectious diseases. The benefits which one commonwealth of this country has derived from the intelligent employment of public sanitary measures were clearly and forcibly presented before this Association last year by Dr. Walcott in his admirable address in State Medicine.

While nothing should be said or need be said to lessen the importance of cleanliness for public health, it is important to bear in mind that hygienic cleanliness and æsthetic cleanliness are not identical. In water, which meets the most severe chemical tests of purity, typhoid bacilli have been found. On the other hand, the air in the Berlin sewers, which certainly does not meet the most modest demands of æsthetic cleanliness, has been found to be nearly or quite free from bacteria.

It needs only to be stated to be generally admitted that the scientific basis of preventive medicine must be the accurate knowledge of the causative agents of preventable diseases, a knowledge which can be derived only from a careful study of all the properties of these agents, the modes of their reception and of their elimination by the body, the circumstances which favor and those which retard or prevent their development and spread, their behavior in the various substances which surround us or which we take into our bodies, and the sources of infection, not only those which laboratory experiments show to be possible, but those which are actually operative.

So long as we were unacquainted with the living organisms causing infection, the means at our disposal for studying the etiology of infectious diseases were limited to the observation of all of the circumstances which we could determine regarding the origin and spread of these diseases. We could only infer what might be the properties of the infections agents from the study of phenomena often obscure and difficult of interpretation. Chiefly by this method of investigation the science of epidemiology has

*The Address in State Medicine delivered before the American Medical Association at Newport on June 28, 1889.

been built up. It has established facts and laws no less of practical than of scientific importance. But it has left unsolved many problems, and has filled gaps with speculations. Admitted epidemiological facts are often open to various interpretations.

We are evidently at a great advantage when we can study the epidemiological facts with a knowledge of the substances which actually cause infection, and this we are now enabled to do for a limited number of the infectious diseases. This new method of research, which thus far has been mainly bacteriological, has aided us not so much by simplifying the problems of etiology, which still remain complicated enough, as by affording greater accuracy to the results.

It is my aim in this address to consider some results of the modern studies of pathogenic micro-organisms in their bearing upon preventive medicine, more particularly upon the sources of infection. It is, of course, impossible within the limits of the address to attempt a complete survey of this important field. Time will permit the presentation of only some of the salient points.

Infectious diseases are those which are caused by the multiplication within the body of pathogenic micro-organisms.

It has always been recognized that some infectious diseases, such as the exanthematous fevers, are conveyed directly from the sick to the healthy. It is not disputed that in these evidently contagious diseases the infectious germ is discharged from the body in a state capable at once of giving rise to infection.

In a second group of infectious diseases, of which malaria is the type, the infected individual neither transmits the disease to another person nor, so far as we know, is capable of infecting a locality. Here there is reason to believe that the infectious germ is not thrown off in a living state from the body, but is destroyed within the body. In this group the origin of infection under natural conditions is always outside of the body.

In a third group there is still dispute whether the disease can be transmitted directly from person to person, but all are agreed that the infected individual can infect a locality. It is especially fortunate that the bacteria which cause cholera and typhoid fever, the two most important representatives of this group of so-called miasmatic-contagious diseases, have been discovered and isolated in pure culture. These are the diseases about whose origin and epidemic extension there has been the greatest controversy. They, above all other diseases, have given the impulse to public sanitation during the last half century. The degree of success with which their extension in a community is prevented is an important gauge of the excellence of the local sanitary arrangements. A clear comprehension of the origin and spread of these diseases signifies the solution of many of the most vexed and important problems of epidemiology and of State hygiene.

It is difficult to understand how those who accept the discovery that the bacteria causing typhoid fever and cholera have been found and cultivated from the stools of patients affected with these diseases, can doubt that these patients are possible sources of contagion or can entertain the view once so widely prevalent that the infectious germs of these diseases are discharged from the body in a condition incapable of producing immediate infection. In an address delivered on another occasion I have endeavored to present the considerations which reconcile the comparative infrequency of direct contagion for these diseases with the belief in the elimination of the causative germs in an active state from the body, and have there pointed out several well known factors which determine the frequency of conveyance of an infectious disease by contagion. There are reasons, some of them very obvious, why diseases in which the infectious substances are operative only when received into the digestive tract, and are discharged usually only with the feces, are less likely to be transmitted by immediate contagion than those diseases in which the virus is thrown off from the skin on epidermal scales.

But the field of operation of direct contagion for these so-called miasmatic-

contagious diseases is at most a restricted one and the chief sources of infection are outside of the body from which primarily the infectious germs may have have been derived. It is to these external sources of infection, which are of such importance in public hygiene, that I wish especially to direct attention.

A full comprehension of the sources of infection is, to be obtained only by a detailed study of the etiology of the individual infectious diseases, but this is, of course, impossible within the limits of an address. It may, however, be useful to present some of the facts which have a general bearing upon the subject. Let us consider, then, from the point of view of modern bacteriological studies, what rôle, in harboring or transporting infectious agents, may be played by those substances or media with which we necessarily come into intimate contact, such as the air, the ground, the water and our food.

It is universally admitted that many infectious agents may be transported by the air, but the extent of danger from this source has often been exaggerated. It is a popular error to suppose that most of the minute particles of dust in the air either are or contain living organisms. The methods for determining the number and kind of bacteria and fungi in the air are now fairly satisfactory, although by no means perfect. These have shown that while the number of living bacteria and fungi in the atmosphere in and around human habitations cannot be considered small, still it is greatly inferior to that in the ground or in most waters. Unlike fungus spores, bacteria do not seem to occur to any extent in the air as single detached particles, which would then necessarily be extremely minute, but rather in clumps or attached to particles of dust of relatively large size. As a result in a perfectly quiet atmosphere these comparatively heavy particles which contain bacteria rapidly settle to the ground or upon underlying objects and are easily filtered out by passing the air th ough porous substances such as cotton-wool or sand. Rain washes down a large number of bacteria from the air. That the air bacteria are derived from the ground or objects upon it is shown by their total absence, as a rule, from sea air at a distance from land, this distance naturally varying with the direction and strength of the wind.

A fact of capital importance in understanding the relations of bacteria to the air, and one of great significance for preventive medicine, is the impossibility of currents of air detaching bacteria from moist surfaces. Substances containing pathogenic bacteria, as, for instance, sputum containing tubercle bacilli or excreta holding typhoid bacilli, cannot, therefore, infect the air unless these substances first become dry and converted into a fine powder. We are able to understand why the expired breath is free from bacteria and can not convey infection, except as little particles may be mechanically detached by acts of coughing, sneezing or hawking. Those bacteria, the vitality of which is rapidly destroyed by complete desiccation, such as those of Asiatic cholera, evidently are not likely to be transported as infectious agents by the air, if we except such occasional occurrences as their conveyance for a short distance in spray.

The only pathogenic bacteria which hitherto have been found in the air are the pus organisms, including the streptococcus found by Prudden in a series of cases of diphtheria, and tubercle bacilli, but no far-reaching conclusions can be drawn from the failure to find other infectious organisms when we consider the imperfection of our methods and the small number of observations directed to this point. The evidence in other ways is conclusive that many infectious agents—and here the malarial germ should be prominently mentioned—can be and often are conveyed by the air. While we are inclined to restrict within narrower limits than has been customary the danger of infection through the air, we must recognize that this still remains an important source of infection for many diseases. All those, however, who have worked practically with the cultivation of micro-organisms have come to regard contact with infected substances as more dangerous than exposure to the air, and the same lesson may be learned

from the methods which modern surgeons have found best adapted to prevent the infection of wounds with the cosmopolitan bacteria which cause suppuration.

We are not, of course, to suppose that infectious germs floating in the form of dust in the atmostphere are dangerous, only from the possibility of our drawing them in with the breath. Such germs may be deposited on subtances with which we readily come into contact, or they may fall on articles of food where they may find conditions suitable for their reproduction, which cannot occur when they are suspended in the air in consequence of the lack of moisture.

From the facts which have been mentioned concerning the relations of bacteria to the air, what points of view present themselves to guide us in preventing infection through this channel? Surely something more than that this purpose is accomplished simply by abolishing foul odors.

Certain indications are so plain as to need only to be mentioned in this connection, such as the disinfection and removal, as far as possible, of all infected substances, an indication which applies equally to all channels of infection and which it is much easier to mention than it is to describe how it shall be realized. But there are two indications which apply especially to the prevention of the transportation of disease germs by the air. One is the necessity of guarding, so far as practicable, against the dessication, when exposed to the air, of substances which contain infectious germs not destroyed by drying, and another is free ventilation.

For no disease is the importance of the first of these indications so evident and so well established as for tuberculosis, the most devastating of all infections diseases. Against this disease, formidable as it may seem to cope with it, the courageous crusade of preventive medicine has begun and is destined to continue.

It is now generally recognized that the principal, although not the sole, sources of tuberculous infection are the sputum of individuals affected with pulmonary tuberculosis and the milk of tuberculous cows. Cornet, who has made a laborious and most instructive experimental study of the modes and dangers of infection from tuberculous sputum, has also elaborated the practical measures which should be adopted to diminish or annihilate these dangers. These measures have been so recently and so widely published in medical journals, and so clearly presented before a section of this Association, that I mention them only to call the attention of practitioners of medicine to their importance and to emphasize the fact that they are based chiefly upon the principle that infectious substances of such nature as tuberculous sputum should not be allowed to become dry and converted into dust when exposed to the air.

By means of free ventilation, disease-producing micro-organisms which may be present in the air of rooms are carried away and distributed so far apart that the chance of infection from this source is removed or reduced to a minimum. It is a well established clinical observation that the distance through which the specific microbes of such diseases as smallpox or scarlatina are likely to be carried from the patient by the air, in such concentration as to cause infection, is small, usually not more than a few feet, but increases by crowding of patients and absence of free ventilation. The well known experiences in the prophylaxis and treatment of typhus fever are a forcible illustration of the value of free ventilation.

It is, of course, not to be understood that by ventilation we accomplish the disinfection of a house or apartment. Ventilation is only an adjunct of such disinfection which, as already mentioned, is of first importance. Time will not permit, nor is it in the plan of this address, to discuss the details of such questions as house disinfection, but I may be permitted to say that the methods for disinfecting apartments have been worked out on a satisfactory experimental basis and should be known, at least by all public health officers. Whether it be pertinent to this occasion or not, I cannot forbear to add my protest to that of others against placing reliance upon any

method hitherto employed of disinfecting houses or apartments by fumigation. And I would, furthermore, call attention to the lack in most cities of this country of public disinfecting establishments such as are in use, with excellent results, in many cities of Europe, and which are indispensable for the thorough and convenient disinfection of clothing, bedding, carpets, curtains, etc.

After this short digression let us pass from the consideration of the air as a carrier of infection to another important external source of infection, namely, the ground. That the prevalence of many infectious diseases depends upon conditions pertaining to the soil cannot be questioned, but the nature and the extent of this influence have been and are the subjects of lively discussion. The epidemiological school, led by Pettenkofer, assigns, as is well known, to the ground the chief and even a specific and indispensable influence in the spread of many epidemic diseases, particularly cholera and typhoid fever. The statistics, studies and speculations of epidemiologists which have related to this subject probably surpass in number and extent those concerning any other epidemiological factor. The exclusive ground hypothesis has become an ingenious and carefully elaborated doctrine with those who believe that such diseases as cholera and typhoid fever can never be transmitted by contagion. These authorities cling to this doctrine with a tenacity which indicates that on it depends the survival of the exclusively localistic dogma for these diseases.

To all who have not held aloof from modern bacteriological investigations it must be clear that views which have widely prevailed concerning the relations of many infectious germs to the soil require revision. The question is still a difficult and perplexing one, but on some hitherto obscure or misunderstood points these investigations have shed light, and from the same source we may expect further important contributions to a comprehension of the relations of the ground to the development of infectious diseases.

The ground, unlike the air, is the resting or the breeding place of a vast number of species of micro-organisms, including some which are pathogenic. Instead of a few bacteria or fungi in a liter, as with the air, we find in most specimens of earth thousands and often hundreds of thousand of micro-organisms in a cubic centimeter. Fraenkel found the virgin soil almost as rich in bacteria and fungi as that around human habitations.

This vast richness in micro-organisms belongs, however, only to the superficial layers of the earth. Where the ground has not been greatly disturbed by human hands there is, as a rule, about three to five feet below the surface an abrupt diminution in the number of living organisms, and at the depth where the sub-soil water usually lies, bacteria and fungi have nearly or entirely disappeared. Fraenkel, who first observed this sudden diminution in the number of micro-organisms at a certain level beneath the surface, explains this singular fact by the formation at this level of that sticky accumulation of fine particles consisting largely of bacteria, which forms the efficient layer in large sand filters for water. Of course the number of bacteria and the depth to which they penetrate will vary somewhat with the character, especially the porosity, of the soil and its treatment, but the important fact that all, or nearly all, of the bacteria and fungi are retained in the ground above the level of the sub-soil water will doubtless hold true for most situations.

The conditions are not favorable for the multiplication of bacteria in the depth of the ground, as is shown by the fact that in specimens of earth brought to the surface from a depth of a few feet, the bacteria which are at first present rapidly multiply. What all of the conditions are which prevent the reproduction of bacteria in the deep soil has not been ascertained, but the fact necessitates similar precautions in the bacteriological examination of the soil as in that of water.

We have but meagre information as to the kinds of bacteria present in the ground in comparison with their vast

number. Many of those which have been isolated and studied in pure culture possess but little interest for us so far as we know. To some of the micro organisms in the soil appears to be assigned the rôle of reducing or of oxidizing highly organized substances to the simple forms required for the nutrition of plants. We are in the habit of considering so much the injurious bacteria that it is pleasant to contemplate this beneficent function so essential to the preservation of life on this globe.

Among the pathogenic bacteria which have their natural home in the soil the most widely distributed are the bacilli of malignant œdema and those of tetanus. I have found some garden earth in Baltimore extremely rich in tetanus bacilli, so that the inoculation of animals in the laboratory with small bits of this earth rarely fails to produce tetanus. In infected localities the anthrax bacillus and, in two instances, the typhoid bacillus, so far as it was possible to identify it, have been discovered in the earth. There is reason to believe that other germs infectious to human beings may have their abiding place in the ground; certainly no one doubts that the malarial germ lives there. As the malarial germ has been shown to be an organism entirely different from the bacteria and the fungi, we can not apply directly to its behavior in the soil and its transportation by the air, facts which have been ascertained only for the latter species of micro-organisms, and the same precautions must be observed for other diseases with whose agents of infection we are not acquainted, as, for instance, yellow fever.

In view of the facility with which infectious germs derived from human beings or animals may gain access to the soil, it becomes a matter of great importance to determine how far such germs find in the soil conditions favorable for their preservation or their growth. We have, as is well known, a number of epidemiological observations bearing upon this subject, but with few exceptions these can be variously interpreted and it is not my purpose to discuss them. The more exact bacteriological methods can, of course, be applied only to the comparatively small number of infectious diseases, the causative germs of which have been isolated and cultivated, and those methods hitherto have been applied to this question only imperfectly. We cannot regard the soil as a definite and unvarying substance in its chemical, physical and biological properties. What has been found true of one kind of soil may not be so of another. Moreover, we cannot in our experiments bring together all of the conditions in nature which may have a bearing on the behavior of specific micro-organisms in the soil. We must, therefore, be cautious in coming to positive conclusions on this point on the basis of experiments, especially those with negative result. With these cautions kept constantly in mind the question, however, is one eminently open to experimental study.

The experiments which have thus far been made to determine the behavior of infectious micro-organisms in the ground have related especially to the bacilli of anthrax, of typhoid fever and of cholera, and fortunately these are the diseases about whose relations to the ground there has been the most discussion and concerning which we are most eager to acquire definite information.

As regards anthrax bacilli, it has been determined that in ordinary garden or field earth they do not multiply, but in earth contaminated by blood, urine or feces their reproduction can occur. They can grow on various vegetable substrata. There is no reason to doubt, therefore, that the anthrax bacilli can find in or on the ground suitable conditions for their multiplication, although such conditions are not everywhere present. For durable infection of the soil with anthrax bacilli, it is, however, more important that these bacilli should find there suitable conditions for the formation of spores, than that they should be able simply to multiply. The vegetative forms of anthrax bacilli would not, as a rule, be able to survive for a great length of time the hostile influences which they are likely to encounter in the ground, such as insufficient or exhausted moisture and the attacks of saprophytic or-

ganisms. On the other hand, against these injurious influences the anthrax spores have great resistance. In the superficial layers of the ground the anthrax bacilli may often find those conditions of moisture, of temperature, of oxygen supply and of insufficient food, which we know are most favorable for the development of their spores; indeed Soyka has shown that the ground presents often these conditions better than our culture media. A circumstance discovered by Feltz, which, however, needs confirmation, is, if true, of not little significance. He finds that anthrax bacilli may undergo a progressive diminution in virulence in the soil. If this should be true likewise of other infectious micro-organisms, we should be able to account in some instances for the variable degree of virulence which clinical observation indicates that certain agents of infection acquire.

So far as anthrax bacilli are concerned, we may conclude, therefore, that the ground occasionally offers suitable conditions for their reproduction, but what is of greater importance, it offers especially favorable conditions for their long continued preservation in the form of spores. I must forego here the further consideration of the special circumstances inherent in the soil which control the origin and spread of epidemics of anthrax in cattle, although many interesting investigations have been directed to this subject.

Of greater interest to physicians is the behavior of typhoid and of cholera bacteria in the ground. As has already been intimated the ground is regarded by Pettenkofer and his school as the prinpal breeding place of these micro-organisms outside the body. This view, however, is not supported by bacteriological investigations. Inasmuch as the cholera and typhoid bacilli may multiply on various vegetable substrata and substances derived from animals at temperatures often present in the ground, it is evident that here and there conditions may be present for their growth in the ground, but this growth is likely to be soon interrupted by the invasion of ordinary saprophytic organisms and other harmful influences. The typhoid bacilli are more hardy in resisting these invaders than are the cholera bacteria, which easily succumb, but even for the former, so far as our present knowledge extends, the ground can rarely serve as a favorable breeding place.

It is not, however, necessary that these organisms should multiply in order to infect for a considerable time the ground; it is sufficient if their vitality is preserved. As to this latter point, the reports of different investigators are not altogether concordant. Such excellent observers as Koch, Kitasato and Uffelmann found that the cholera bacteria, when added to feces or a mixture of feces and urine, rapidly diminished in number and at the end of three or four days at the most, had wholly disappeared. In a mixture of the intestinal contents from a cholera corpse with earth and water Koch found many cholera bacteria at the end of three days, but none at the end of five days. On the other hand, Gruber reports the detection of cholera bacteria in dejecta fifteen days old. The weight of bacteriological evidence, therefore, is opposed to the supposition that the bacteria of Asiatic cholera preserve their vitality for any considerable time in the ground or in the excreta.

With respect to the bacilli which cause typhoid fever, it has been shown by Uffelmann that these may live in feces, mixture of feces and urine, and mixture of garden earth, feces and urine for at least four or five months, and doubtless longer, although they may die at the end of a shorter period. He also finds that under these apparently unfavorable conditions some multiplication of the bacilli may occur, although not to any considerable extent. Grancher and Deschamps found that typhoid bacilli may live in the soil for at least five months and a half. Unlike the cholera bacteria, therefore, the typhoid bacilli may exist for months at least in the ground and in fecal matter, holding their own against the growth of multitudes of saprophytes. This difference in the behavior of cholera and of typhoid germs is in harmony with clinical experience.

As regards other infectious bacteria than those which have been considered

I shall only mention that tubercle bacilli, although incapable of multiplication under the ordinary conditions of nature outside of the body, may preserve their vitality for a long period in the ground, on account of their resistant character, and, furthermore, that the pyogenic cocci, on account of their considerably resistant nature and their modest demands in the way of nutriment, can be preserved and sometimes probably grow in the ground. Indeed the staphylococcus pyogenes aureus has been found in the earth by Lübbert.

The conclusion which we may draw from the observations mentioned is that, in general, the soil is not a good breeding place for most of the infectious bacteria with which we are acquainted, but that it can retain for a long time with unimpaired vitality those which produce spores or which offer considerable resistance to injurious agencies, such as anthrax bacilli, typhoid bacilli, tubercle bacilli and the pyogenic cocci.

(*to be concluded.*)

URÆMIC CONVULSIONS, COMA AND DEATH.

BY J. T. HOLLAND, M. D.,
OF RUTHSBURG, MD.

In the early morning of the 27th ultimo, I was summoned to see Mrs. W., age, 20 years, primapara, and in 8th month of utreog-estation. Her muscles were just relaxing from a severe convulsion when I entered her room. I saw at a glance that her tongue and nether lip were bitten and the patient anasarcous from tarsus to occiput.

I waited a few moments for signs of returning consciousness and seeing none, gleaned from the young husband and the lady friends present the following history. About two months previously her feet began to swell, the œdema rapidly extending upward. This with her extreme native modesty and sensitiveness induced her, like the ancient Jewess when conception was made manifest, to hide herself away and refuse to be seen by any one save her most intimate lady friends. One month since, the local œdema having become anasarca, her husband insisted on calling a doctor, but she refused, and no doctor saw her until my visit on the morning of her illness.

In about ten minutes after my arrival the patient was seized with another convulsion. These convulsions went on recurring at intervals of fifteen to twenty minutes with no return of consciousness in the intervals. Deglutition was impossible. The patient was of short statue, and inclined to plethora. No indications of labor. Remembering the words of Prof. Penrose, of the University of Pennsylvania, with reference to such cases, who says: "The first and great remedy is blood-letting" * * * "bleed your patient or she will die." I at once placed a ligature on her arm, and looked for the median brachial and cephalic veins. But alas, they evaded all search by eye or "tactus." Again and again I increased the constriction, but no sign of a vein in the flexure of either arm. With the admonition still sounding in my ears, "bleed your patient or she will die," I hastily despatched my son to Centreville (7 miles) for my friend Dr. Jas. Bordley. In due time the doctor's swift steeds brought him (the doctor is a *Jehu* and drives "Crazy Janes)." To him I briefly sketched the case, and expressed my convictions that it was *blood* or *death*. The doctor at once tied up the arm, but no vein—tighter, but yet no vein. Thinking that better results might be had from its fellow, he tied up the right arm, results the same. Both sight and touch having failed to discover a vein, my friend drew the ligature as tight as prudence would allow and, guided by "Faith," he sprung the lance but no blood came. Again and again clicked the lance, but no blood. Returning to the left arm, the process was repeated, but still no blood. Oh, how anxious we both were to shed blood! Then Bordley from his obstetric case drew a long, narrow and pointed bistoury. Placing the finger and thumb, one on each side of a puncture made by the

lancet to open the same, he, guided "by faith not by sight," made a sure pluck in the bottom of the incision, and lo! the blood leaped forth in a beautiful stream. We took about sixteen ounces, and waited to note results. After the space of an hour, the convulsions unabated and coma deep, we re-opened the vein and drew from eighteen to twenty ounces more. Waiting awhile, we tested her deglutition, and found the patient could swallow water in small qnantities. We then gave 12 grains of calomel, followed by cream of tartar ʒ ss. every 4 hours.

At about 8 o'clook, P. M., (same day) I oberved that a longer time had elapsed since last convulsion than hitherto, and the patient was more quiet. She had about 25 during the day just closing. Watching her closely, I noticed the arch of the abdomen suddenly to round up, and with this movement, I thought I saw a little tendency to strain depicted in her face, I hurried to make the "touch" and found the fœtal head pressing on the perineum. She soon began to make strong expulsve efforts (excito-motor, not voluntary) and became perfectly quiet, not a muscle moved in either of her limbs. A still-born fœtus was soon expelled, judged to have passed about 7½ months of intra-uterine life, and to have been dead abont four days. The placenta was soon removed without difficulty. The patient had no more convulsions from this time, but otherwise not improved.

May 28th.—Four ounces of cream of tartar taken. No catharsis. Coma deep. Sensibility scarcely, if at all, perceptible in trunk or limbs, bnt elicited in face by crawling flies or dangling string moved about nose or mouth. Respiration 30, not stertorous but chiefly abdominal. Pulse, 120 and easily composed. Temperature 102° F. gave antipyrin, 15 grs. every 4 hours—enemata until bowels freely moved.

May 29th.—Bowels moved several times unconsciously by patient. Temperature has steadily risen in spite of antipyrin, though intervals of exhibition were changed to 3, then to 2 hours. Temperature 103½°, antipyrin discontinued. ℞.—Pilocarpin. Hydrochlor. ⅓ gr. hypodermatically, to be repeated pro re nata. Cream of tartar in small doses at short intervals per os. Cerate Cantharidis ad nucham. Capillary circulation so morbidly exalted that, with the finger nail gently drawn over her beautifully white rounded arm, you could write your name as with the most beautiful red ink.

May 30th.—Coma profound. Seeming paralysis of both motion and sensation in all the limbs. Respirations 45, almost entirely per diaphragm with movements of thorax just perceptible, except at intervals deep sighing inspirations with full expansion of thorax. Temperature in axilla fell 105°. In the mouth, though tongue yet sore from bites,not quite 104°. Pulse 130. Feces and urine both pass unconsciously. Two doses pilocarpin have been given, acted vigorously, producing lividity of general surface and profuse perspiration and flow of saliva from both mouth and nose, insomuch that patient had to be turned on her side and closely watched to prevent asphyxia from saliva passing mechanically into the larynx.

8 P. M.—Deglutition impossible. Mouth and throat very dry, to moisten which, I ventured to inject under the skin ⅙ gr. of pilocarpin. In less than ten minutes the saliva began to flow. To protect the larynx, we at once turned her on her side. Apnœa followed from changed position. Dorsal decubitus resumed, and breathing restored—but alas! in evading the "Scylla" of apnœa I plunged my patient into the "Charybdis" of asphyxia, and in a few moments she was gone.

In conclusion, I would ask my readers two questions. 1st. Was all done for the patient that might, could or would have been done?

2nd. Was the patient's death the direct toxical effect of urea on the medulla oblongata? or was it the result of cerebral effusion?

The accidental asphyxia only anticipated death by a few hours.

MAGGOTS IN THE UMBILICUS.

E. OLIVER BELT, M. D.,
OF BALTIMORE.

Assistant Surgeon to the Presbyterian Eye, Ear and Throat Charity Hospital.

About a fortnight ago, while visiting in the country, I was called in to see a case which, if not unique, will at all events I think, be of considerable interest to the general practitioner.

Mrs. D. had been confined six days previously, and both herself and babe were apparently doing well up to the morning in question, when she noticed the child was somewhat jaundiced, which she said increased rapidly during that day. It soon became restless and refused to nurse. Bowels were quite free. Being quite poor, and sadly lacking in the belief that "cleanliness was next to godliness," both mother and child had received but little attention, and the child's umbilicus had not been dressed or looked at for two days. Charred linen had been used. Upon unwrapping the child the mother was horrified at finding a handful of maggots in and about the navel. When I arrived I saw perhaps a dozen, the size of chestnut worms, crawling over the child's abdomen, which the mother said came out of the umbilicus, where I could see a number at work. The funis had dropped off. The abdomen was red and swollen for an inch or two around. The feet and hands were purple, the rest of the body much jaundiced, and the child looked as though it would survive only a few hours. Upon dropping in a few drops of carbolic acid and glycerine (1–4), at least a dozen more maggots came out of the umbilicus.

This seemed to give immediate relief, as shown by improvement in the cutaneous circulation and the child's wanting to nurse. A few small doses of calomel were ordered, and powdered chalk sprinkled over the navel. The icteroid condition passed off in a day or two. I saw the child again a few days ago, and found it in a very healthy condition, with no signs of trouble about the umbilicus whatever. It would be interesting to know how such a case might terminate without treatment, and the cause of the icterus. I think the latter was probably due to a beginning phlebitis of the umbilical vein.

1010 Cathedral Street.

Society Reports.

BALTIMORE MEDICAL ASSOCIATION.

STATED MEETING HELD MAY 13TH, 1889.

Dr. J. E. Gibbons said he had just been called to see a man, 40 years old, who has been for some time weak in his legs and nervous. This morning he was unable to walk. There was pain in both arms and legs. On attempting to walk there was great trembling. On closing his eyes he was unable to stand and fell. Diagnosis: Progressive Locomotor Ataxia. He related it to get some aid in diagnosis.

Dr. J. M. Hundley read a paper entitled,

TWO CASES OF ALBUMINURIA COMPLICATING PREGNANCY.

(See page 184.)

Dr. J. I. Pennington read a paper on

ACUTE NEPHRITIS IN ADVANCED PREGNANCY.

(See page 172.)

Dr. A. Atkinson said his experience with puerperal eclampsia has been unfortunate. He has found it most fatal when it comes on before labor begins. He related the following cases in point.

CASE 1.—A young woman, 5½ months pregnant, was seized at night without warning. He was called in in the morning. She had a second convulsion before he got there and another while he was present. He used pilocarpin, as he had often done before, but without good re-

sults. Such cases rarely do well unless labor is superinduced. She had a number of convulsions during the day. Labor was induced. Convulsions ceased till night. She died the fourth day of seizure. During the day she became jaundiced. Post-mortem examination showed the abdominal organs healthy. The kidneys were soft, and as the pelvis was approached the cortex peeled off in great flakes. The whole organ showed fatty degeneration. The liver was highly injected. It looked like a case of hepatitis, but he was not sure of it.

Case 2.—The woman had felt dull and heavy preceding the attack. He found albuminuria. He induced labor. It was the eighth month of pregnancy. Urine was suppressed. He gave croton oil for the coma, which was deepening continually. There was no result from the oil. He injected veratrum viride. There followed every sign of approaching dissolution. This state continued 48 hours, when she began to recover. The oil then for the first time began to act, violently. The woman died.

Case 3.—A young married woman. She had albuminuria. He could not dilate enough to use forceps till she was bled freely, when they were easily introduced, and she was delivered of the child. She remained unconscious for a long time, but had no further convulsions. She finally died.

He has no doubt that these were all cases of old granular kidney.

Dr. Wilmer Brinton has had eight cases, two of which were fatal. All of them he bled. He had a case recently, a woman with chronic nephritis, who in eight years has never carried a child to full term. In her case, after trying all other remedies without avail, blood-letting gave good results. He has seen as good results from blood-letting as from other remedies.

Dr. J. L. Ingle has had several cases. One woman he attended in these confinements without any trouble; in the fourth, albuminuria was present. He put her on remedies for it. There was no decided increase of albumen, till one evening after she had attended the funeral of a relative. The urine contained 75 per cent. of albumen. Blood-letting gave no good results in her case. Dr. Winslow was called in, and by his advice, premature labor was postponed until the next morning. Labor came on, and she was delivered before his return. There were several convulsions after labor. The urine gradually cleared up. In a second pregnancy a similar state of affairs occurred. At eighth month of pregnancy, he was called in and she had her first convulsion after he got there. He dilated and delivered. Recovery.

Dr. Atkinson said there were no convulsions in his case after the administration of veratrum viride. Norwood claims there are no fatal cases. His own dose was m xv, and he thought the patient dead for a while. There are two deaths reported from Alabama. Six of his cases were in primaparæ.

Dr. T. A. Ashby has seen five cases, all occurring in primiparæ. He lost three of the five cases. Those dying were between the 7th and 9th month of pregnancy. In one case post-mortem showed the kidneys friable and brittle—wasted away. In all, urinary examination showed albumen and casts.

Dr. J. I. Pennington said he had another case. A woman was found by her family, up stairs on the floor, in a comatose state. When he got there she had five convulsions. He bled her freely. Convulsions continued. He then gave inhalations of chloroform, without effect. Finally, he injected chloral, 3ss. The os finally began to dilate, and he delivered the child. Recovery followed without any indication of kidney disease. He agrees with Dr. Atkinson that in acute cases, caused by pressure of the gravid uterus, there is more chance of recovery than in cases of chronic renal diseases.

Dr. Randolph Winslow exhibited specimens of

SALPINGITIS AND PYO-SALPINGITIS AND A SPECIMEN FROM HERNIA.

Dr. Randolph Winslow exhibited specimens of pyosalpinx and pelvic abscess having the following clinical history: Miss M., about thirty years of age, had an attack of so-called pelvic cellu-

litis, about a year ago, from which she recovered and went to work. About a month or six weeks ago had another attack, with severe pain, difficulty in micturition and pelvic distress. Upon vaginal examination, under chloroform, a hard mass was felt anterior to uterus, and on the right side a large sausage-shaped Fallopian tube could be distinctly mapped out by bi-manual palpation. Laparotomy was performed, and a large mass was found on the left side pressing on uterus and bladder, and an enormously distended tube which seemed to be on the right side, but was the left tube. These sacs were universally adherent, and were separated with much difficulty, causing considerable hemorrhage and rupturing an abscess, which flooded the pelvis with foul smelling pus. This was thoroughly washed out, and the tube and sac ligated and removed. The right tube and ovary were also removed, the tube being adherent to the pelvic wall and containing pus; the ovary was normal. A glass drainage tube was introduced, and the wound closed. The patient did well, with one exception, and that a bad one. The temperature remained but little over normal, and there was but little discharge from the drainage tube, which was removed on the 5th day. The next day the dressings were saturated with urine. It is probable that the nutrition of the bladder walls was interfered with by the removal of the mass, but no hole was made into the bladder at the time of the operation. Sloughing however occurred subsequently, with the escape of urine through the track of the drainage tube. Her temperature is nearly normal, and but for this accident her condition would be excellent. If the fistula does not heal spontaneously, an incision will be made down to the bladder and the opening sutured. As far as the causation of the pyosalpinx is concerned, there is no history of gonorrhœa, but this cause cannot be excluded.

SPECIMENS FROM A CASE OF FEMORAL HERNIA.

Dr. Winslow also exhibited the sac and omentum removed from a case of strangulated femoral hernia. The patient was a woman, 53 years of age, who had an old irreducible femoral rupture. She was taken with pain and vomiting and other signs of strangulation. The condition was recognized early by Dr. Ashby, the attending physician, who called Dr. Winslow within twelve hours. A doughy lump was found in the groin, lobulated in character, which was determined to be a femoral hernia. The incision for femoral hernia was made, the sac opened, and a large mass of omentum ligated and removed. A very small knuckle of intestine was found in the crural ring, which was dark from congestion, but had not lost its glossy appearance. This was reduced without nicking the ring, when a small lump was found in the groin, which contained omentum. This sac communicated with the first, making a hernia with a double sac. Both sacs were dissected out and ligated as high as possible within the abdominal cavity, and excised, the wound closed. The patient went home well in two weeks. This case illustrates the advantages of an early operation; a cure, probably radical, without any fever or trouble. If the operation had been delayed 24 hours, the result might have been very different. The peculiar arrangement of the sac is interesting and worthy of notice.

Dr. Ashby knows no subject causing more discussion among gynæcologists than this. The older members of the American Gynecological Association are inclined to adhere to the old pathological view of the trouble arising in the ovaries and extending therefrom. Others hold the later view of its origin in the vaginal mucous membrane, and extending upwards along the tube to the ovary and surrounding tissue. The abscess would continue till the pus found an outlet through vagina (the usual way) rectum or other part. The origin of the trouble is held by Tait and others to be due to gonorrhœal taint.

Dr. J. H. Scarff said he had seen Dr. Wiley operate upon 44 cases. In each case the so-called abscess was a collection of pus in the tubes. Of course the pus

finds its way into the surrounding tissues. He agrees with Dr. Ashby.

Dr. J. W. Chambers said he is not prepared to accept the view that gonorrhœa is the chief cause. If so, most prostitutes would have it at some time. He has seen 25 post-mortems of such women at Bayview, who had no trace of pelvic inflammation. He believes that conditions connected with child-bearing are potent causes.

Dr. Scarff thinks gonorrhœa in the male may be the cause.

Dr. S. T. Earle thinks gynæcologists attribute 85 to 90 per cent. of such cases due to that cause.

Dr. Ashby thinks gynæcologists are by no means agreed upon that point.

Dr. J. I. Pennington read a paper on

ELECTRO-CATAPHORESIS.

(See page 183.)

HENRY B GWYNN, M. D.,

Recording and Reporting Secretary,

1837 W. Lexington Street.

MEDICAL AND SURGICAL SOCIETY OF BALTIMORE.

STATED MEETING HELD APRIL 11, 1889.

The 692nd regular meeting of the Society was called to order by the President, Dr. R. W. Mansfield.

Dr. John U. Pickel related

A CASE OF LARYNGISMUS STRIDULUS.

February 21st, 1887, a colored female child aet, 3 months and 21 days, tolerably well nourished by artificial feeding, was brought to his office by its mother, who made the following statement. At times the child would have a crying spell, when all of a sudden it would stop breathing and it would only breathe again on being violently shaken. It would then emit a peculiar noise. As a matter of form the doctor placed a thermometer in the child's axilla and while holding it there, the child tried to get the doctor's finger in its mouth, when suddenly it began to cry as if hurt. In a short time respiration ceased and the child became asphyxiated. It was laid on the floor and its clothing loosened and while the doctor was getting some water to dash in its face, the mother seized the child and ran from the office, leaving some of its clothing behind. When the mother called again she stated that the child was dead and asked for a certificate of death, which was given. The cause of death was stated to be laryngismus stridulus. Dr Pickel said there was nothing of special interest in the case, but as the cause of the convulsions in laryngismus stridulus is not fully ascertained, he thought he would bring it before the Society for discussion.

Dr. Frank C. Bressler said laryngismus stridulus must be differentiated from true croup; the former is sudden in its attack, while the latter is more gradual. There are three varieties, laryngeal, diaphragmatic, and an intermediate variety, which partakes more or less of the characteristics of the other two. Almost any irritation may cause an attack. The symptoms are about as Dr. Pickel has described. The pathology of the disease is not known. It may be caused by rickets and is often seen in strumous children. He had a case in his practice caused by the irritation of teething. The mortality is considered great by some. Treatment is nil. He had used quinine in large doses with benefit. He had a case in which he had used the heroic treatment of holding the head of the child under the hydrant in mid-winter. He thought Dr. Pickel's case unique in that it was fatal.

Dr. Thomas E. Evans said: A case in his practice that occurred when he was out of town and did not see until he returned, on the fourth day of the attack. He found the child almost pulseless, breathing in a stridulous manner, and it looked as though it would be dead before

morning. Next day the child seemed apparently well. He treated it for a week with potassium bromide, and then discharged it. About a week after he was called again to see the child, who had been suddenly seized in the midst of its play with a similar attack. The irritation in this case was from teething. A paroxysm could be induced by using a spoon as a tongue depressor. He put the patient on potassium bromide, and it got better, as before. In four weeks he was again called to see the child for the same trouble; again the same remedy was given. These attacks and recoveries were repeated over and over again for more than a year; he had ordered the continued use of the bromide mixture, and as long as this was taken the attacks were slight and recovered from, but about this time the bromide mixture was being neglected and the child was suddenly seized one night and died during the attack.

Dr. Wm. H. Norris said there are two forms of laryngismus stridulus—one the laryngeal, which is usually called croup by the mother of the child, and is to her very alarming. It is frequently relieved by a favorite domestic remedy, the hot mustard bath. The cases related by Drs. Pickel and Evans are neurotic and are dependent on some irritation, usually reflex, of the pneumogastric nerve. Heredity is an important factor in the causes of this disease. Children of neurotic parents are liable to be attacked by it. Cases which are called false croup are not so serious, but the neurotic are dangerous.

Dr. John U. Pickel said he called his case laryngismus stridulus because the mother told him when the child breathed again, after she had carried it from his office, it had that peculiar breathing which is described as stridulous. Some authors say the disease is caused by an enlarged thymus gland pressing on the pneumogastric nerve, thereby causing an irritation.

Dr. Frank C. Bressler said the pressure of an enlarged thymus gland on the pneumogastric *was* given as a cause of the disease, but that idea has been abandoned. Every child has an enlarged thymus gland for about two years after birth and if the disease were caused by an enlarged thymus, then *every* child ought to have laryngismus stridulus. This of course is not the case.

Dr. David Streett related

TWO CASES OF HYDATIFORM MOLE.

with specimen. Also

A CASE OF SARCOMA OF THE STOMACH.

with specimen.

The case which I shall briefly relate is one in which Mrs. E—, to whom I was called on Sunday April 7th,, 10 A. M., passed an hydatiform mole, which I now exhibit for your inspection.

Mrs. E—, is 47 years old this month, is the mother of several children and is in good health. On my arrival I learned that pains of a rhythmical character came on during the night and the lady supposing she was suffering from a miscarriage sent for a midwife in the neighborhood. In a short time a fleshy mass mingled with round bodies grossly resembling grapes was passed and the midwife recognizing the unusual appearance advised them to call a physician. I examined the mass which had just been passed and found it to be composed of a fleshy substance much resembling early placental tissue, holding in its trabeculæ and bearing upon its surface a multitude of little cysts varying in size from a pea to that of a large marble.

These cysts are evidently due to dropsical or cystical degeneration of the villi of the chorion. You can see how they are attached to the mass by little pedicles. I examined the contents of several of these cysts beneath a microscope and found no scolices or hooklets of real hydatids. Nor did I expect to find any true hydatids being so far as I know unknown in this location.

Upon examination of the lady I found

the os-uteri patulous but admitting the tip of the index finger. Cervix was thick, within the uterus I could distinctly feel more of the cystic mass. I succeeded in breaking off only a few small pieces of the mass which were similar to that first passed. She was losing some blood, but not a large amount. I advised to let me administer chloroform and dilate neck and remove the mass. This the lady and her husband then, and since persistently declined to have done.

It is now five days since the specimen was passed, and the lady is now going about the house, has no pains and no hemorrhage, I have given a large quantity of ergot but failed to produce pains whilst I have arrested the hemorrhage. Of course this mass must sooner or later come away. I presume what is left will continue to grow rapidly.

It has occurred to me, since attending this case to ask what is the cause of that peculiar perversion of nutrition causing, the chorinic villi to assume the condition of cystic degeneration in the formation of the hydatiform mole.

CASE 2 of the same kind which I desire to mention is as follows :

Miss L. A. G—, married, a mulatto, occupation laundress, æt. 43 years, supposed she was seven months pregnant ; her abdominal development corresponding to that of a woman at such a period. I found her suffering with rhythmical pain and losing considerable blood. Examination revealed the case to be one of hydatiform mole. Assisted by my friend, Dr. J. D. Blake, I introduced hand and took away the entire contents of uterus, which consisted of the cysts peculiar to hydatiform moles.

This case occurred December 12th, 1880. The patient died at end of four weeks. Post-mortem showed that death was due to metritis and peritonitis.

CASE 3 which I shall relate, and the specimen belonging to which I now show you, is that of Mr. G. W. D—, æt. 55 years, engineer, married ; has three sons living, adults and healthy ; has always been a moderately temperate man ; was taken with dysentery, August 15th, 1888. During the attack he suffered with severe rectal tenesmus and voided much mucus and blood. Dysentery continued two months before ceasing. About this time pain and swelling developed in epigastrium and right hypochondrium. He was much prostrated, and suffered from nausea. From this time he continued to grow worse, until March 8th, 1889, when I was called to see him. On my first visit I noted he was very anæmic, extremely emaciated, prostrated, confined to bed ; was cachetic, the skin having a yellowish pallor, but not jaundiced, the sclerotica being clear and normal. Told me he had been treated by several physicians, from none of whom did he obtain any relief. He suffered from constant pain in region of liver. Area of hepatic dullness increased and extended about four inches below ribs on right side and nearly to crest of illium. There was no marked tenderness over region of liver, and a large, hard and nodular mass was easily outlined in regions named. The liver was evidently much enlarged. The bowels move daily, and the alvine evacuations are melænic. Diagnosed cancer of liver, and ordered ℞ morph. sulph. g ½ when suffering. This small quantity gave complete relief, and was not increased at any time. I suppose his hepatic cancer was probably secondary to gastric cancer, but so far had nothing to confirm it.

March 17th.—Condition unchanged ; anorexia ; no jaundice ; takes milk, light bread, etc.

March 19th.—General symptoms unchanged. On my arrival showed me some dark, hard masses, which had vomited. Examination proved them to be the rinds and ligneous cell walls of oranges, stained black, probably with the coloring matter of the blood. The urine was examined and found normal.

March 20th.—Sent for me and on my arrival showed me about one pint of an offensive grumous liquid which he had vomited. Macroscopic appearanc, dark bloody and mixed with mucus. Micro-

scopical examination showed fat-cells, red blood cells, all separate and no tendency to aggregate in rolls, epithelium abundant, fasciculi of striated muscular fibre. At this time I diagnosed primary cancer of stomach. Inquiry next day failed to ascertain that any meat had been eaten for several weeks. This I deem incorrect. No doubt the patient had eaten the meat and it lodged in some crypt or fold of mucous membrane.

March 21st.—More prostrated, voice sepulchral—on this date learned his brother died of cancer of the liver about two years ago, and that his mother seems to have some disease of a similar character. M. D., died March 27th, 11 P. M.

Post-mortem.—Made by my friend Dr. E. T. Hein in my presence March 28th, 1889, showed body extremely emaciated and cachectic, tumor plainly visible, abdomen opened, liver much enlarged, hard, nodular all over, tears easily, section shows general cell infiltration and little healthy hepatic structure. The centre of many of the nodules showed fatty degeneration.

Stomach examined, found adherent to anterior abdominal wall by inflammatory adhesion, on being opened the walls appeared thicker than normal. On anterior wall, near the lesser curvature and about one inch from pylorus was found an indurated growth about $2\frac{2}{3}$ inches in diameter, walls at periphery rampart-like and centre disintegrated and excavated and filled with a grumous detritus,. This excavation was found to have perforated anterior wall, and would no doubt have caused death, but for adhesive peritonitis.

Now Mr. Chairman I have related this case in detail in order to show the difficulty of *always* diagnosing primary cancer of the stomach early in the disease. This was a case of primary cancer of the stomach, with secondary cancer of the liver, the secondary growth in this as is often the case, outranking in apparent importance and obscuring the primary growth. The history of a severe and prolonged attack of dysentery just prior to the development of the hepatic tumor, pain, etc., would point to the probability of chronic hepatic abscess. But at the time I saw the case the tumor, induration, nodulation, pain, tenderness, emaciation and cachexia pointed unmistakable to cancer of the liver.

Nothing occurred to confirm my suspicion of primary gastric carcinoma until March 20th, twelve days after I first saw the case. No history of prior vomiting except when orange rind was vomited and strange to say I learned they had been eaten about five days before being vomited, showing instead of gastric *irritability*, an unusual *tolerance* upon the part of the stomach. It is true when vomiting did take place, it was of a character to determine the diagnosis with precision. Notwithstanding grumous vomiting as one of the most salient symptoms of cancer of the stomach referred to by text books, I am frank to say I have seen it in few instances in cases that have come under my observation.

It is evident that an *ensemble* of all the symptoms in a given case must be considered in order to arrive at a diagnosis. Certain facts however, serve as good landmarks in diagnosis. Cancer of the stomach occurs rather more frequently in men than in women. Three-fourths of all cancers of the stomach occur after 40 years of age. In four-fifths ($\frac{4}{5}$) of all cancers of the stomach a tumor can be detected. In about (88 per cent.) eighty-eight per cent. the cancer occurs at the pyloric extremity. History of heredity contributes something to assist us sometimes. In some obscure and latent cases diagnosis is impossible.

Dr. Frank C. Bressler said in diagnosing cancer of the stomach we have more to contend with than almost anything else in medicine. If in a patient over 40 years of age we have gastric eructations, we may suspect cancer. He had a case that Dr. Streett saw with him, of a woman who had grumous vomiting, and they had diagnosed cancer of the stomach. She passed out of their hands,

and the doctor who then had her in charge diagnosed stricture of the œsophagus. He had a case of a woman from another doctor, who had not suspected cancer. He examined her and found a tumor, hard and nodular, over the liver. When she died the post-mortem showed a small cancerous ulcer in the stomach and two or three hundred cancerous nodules in the liver. Another case of a gentleman who was emaciated and cachectic, with grumous vomiting. He tried the hydrochloric acid test for two weeks and found it absent during that time. He diagnosed cancer of the stomach, and when the patient died the post-mortem showed a cancerous perforation at the pylorus, which had eaten into the liver, which was one mass of cancerous nodules. Another case of a man 70 or 80 years old, a hospital patient, who was very ignorant, and a satisfactory history could not be obtained from him. This patient was given up as an advanced case of phthisis. When he died the post-mortem showed almost every organ in the body to be involved. Another case, similar to the last in obscurity, occurred at Bayview. He was set down as a case of chronic bronchitis. One day he would have, on auscultation, sonorous and mucous rales; the next day they would all have disappeared. The post-mortem in this case showed cancer of the œsophagus, the lungs being full of cancerous nodules, the formation of these nodules in the lungs explaining the auscultatory signs of chronic bronchitis.

The registers of the English hospitals show that heredity is of little importance in cancer. In the hydrochloric acid test, if the hydrochloric acid be absent, the question is, what causes its absence? as there are many causes for its absence besides cancer. The only sure indication the hydrochloric acid test will give us is that its constant presence *excludes* cancer. Its occasional absence may be caused by other conditions besides cancer. When we shall have arrived at that state of knowledge where we are able to to diagnose cancer of the stomach early, then we should call in the surgeon and do a laparotomy and remove the cancer.

Dr. J. W. Chambers said the specimen looks like a soft medullary cancer. Its position is rare; usually cancer of the stomach occurs on the posterior wall of the organ. It is not scirrhous; it is the kind that may have nodular growths accompanying it all through the alimentary canal. The diagnosis of cancer of the stomach is very difficult. There is no certain method; in fact, all diseases below the diaphragm are involved in so much obscurity as to make their diagnosis difficult. Clinicians are laying too much stress on the vomited matter. The patient may retain things in the stomach for a week without any very serious disturbance, as shown by the case that Dr. Streett had reported. The character of the vomited matter is a factor in diagnosis, but it is not the most important factor. The hydrochloric acid test is on trial. If the hydrochloric acid is absent, it is presumptive of cancer, but there are many other diseases that will interfere with the secretion of hydrochloric acid. Trousseau says if a patient of cancerous age (over 40) suffers from phlebitis, it is a symptom of cancer. Surgeons are not as enthusiastic as heretofore in operating for cancer of the stomach. Dr. Bernays, of St. Louis, has recently introduced an operation. He does a gastrotomy, curettes the stomach and dilates the pylorus; he leaves a fistulous opening, and when the opening closes, he cuts down and curettes again. There are no successful cases of operation for cancer of the stomach. The English have been condemning it for a year, and the Germans are also doing less than heretofore.

Dr. David Streett said he agreed with Dr. Chambers as to the infrequency of grumous vomiting in cancer of the stomach, This was the first case where he had seen it. He did not agree with Dr. Bressler as to the non-importance of heredity. A man may have a peculiar vitiated cell growth that will tend to cancer, just as much so as in insanity.

Dr. Wilmer Brinton said he was interested in the case of hydatiform mole; cystic degeneration of the chorionic villi is rare. He had never seen a case of it. He would ask Dr. Streett what was the condition of the patient at that time, (April 11, 1889), and whether she had

any septic trouble? He would also ask Dr. Streett to watch the case and report its ultimate issue to the society.

Dr. David Streett said the condition of the patient was good. She had no pain or hemorrhage and no septic trouble. She was at present attending to all of her ordinary household duties.

Dr. John W. Chambers said he had seen three or four specimens of hydatiform mole, but had not seen any cases. He believed that they were cases that called for operative treatment; that there was some danger in the operation, but not as much as in the disease if left undisturbed, and as septicæmia is imminent the patient should be informed of the danger of non-interference.

Dr. David Streett said he had informed the patient of the danger she was in, and had urged upon her the operation, but she and her husband both had persistently declined it.

Dr. Thos. B. Evans related

A CASE OF SPINA BIFIDA.

in a babe five weeks old. It was the second child of its mother, who was attended at its birth by a midwife who gave a fatal prognosis for the child. The child was five weeks old when he saw it and it bade fair to continue to live. It was well nourished and well developed in every other part of its body, there were no enlarged fontaneiles, no hydrocephalus and no club feet. It takes nourishment well and complains of no pain except when the tumor is touched. The tumor is in the usual situation, is sessile and about the size of an orange, it is of a bluish red color, soft and moist all the time as though there were a continuous exudation of the contained fluid. The covering or walls of the tumor is composed of the dura matter and probably the arachnoid, but there seems to be no skin covering it. He thought there was a hernia of the cord as the very slightest touch caused pain. He had not interfered with the tumor, but had contented himself with simply protecting it from compression, by enveloping it in cotton held in place by adhesive straps and a loose bandage.

Dr. Wm. H. Norris said he saw a case of spina bifida, a few days ago, in a child four weeks old, a dispensary patient. The patient is one of twins, is hydrocephalic, emaciated and its legs are rigidly drawn up and maintained in that position. Its parents are Bohemians and no satisfactory history could be obtained. The tumor in this case was about the size of a small orange and sessile. He punctured it with a hypodermic needle and a small quantity of clear fluid came away. He then dressed it with cotton kept in position by adhesive straps.

Dr. J. W. Chambers said he knew of a case of spina bifida in a child three years of age, who died of some intercurrent disease. He saw another case with Dr. Friedenwald of a girl fifteen years old. As to the treatment of spina bifida, any fluid that may be injected will follow the circulation into the meninges and ventricles of the brain and set up more or less irritation according to the nature of the fluid used. As for treating it like a hydrocele, by drawing off the fluid, he thought we should not draw off more than just enough to relieve tension, for if too much fluid be drawn off, the cord would come down on the bones and then produce a fatal irritation. If the sides of the tumor could be brought together near the base and held in that position long enough for plastic adhesion to take place and thus make a pedunculated tumor of it, it might then be excised. Gaillard Thomas reports two cases of anterior spina bifida, where the tumor was situated in the pelvis, one of which he tapped with a fatal result.

J. Wm. Funck, M. D., Sec'y.,

1710 W. Fayette Street.

During a discussion over the educational budget in the Belgium Senate recently, a member attracted attention to the constant increase in the number of students at the Universities,—an increase which showed, in his opinion, that the examinations were too easy, and which threatened to overload the liberal professions.

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BALTIMORE, JULY 13, 1889.

Editorial.

THE DIURNAL AND NOCTURNAL EXCRETION OF URINE.—However we may appreciate the truth of certain theories, we do not too often fail to carry them into practice, and this often on account of our natural laziness or the inconvenience incurred to others. Take the examination of urine as an example. We advise the patient or applicant for life insurance to bring the urine of the night, or a part of the total quantity passed in twenty-four hours. As a fact, we may at times, with the assistance of a good nurse, be able to secure the urine as we want it from an actual invalid, but with the majority of life insurance applicants the urine is generally the most difficult thing to procure, and we are glad to get it from any part of the day or night. As a fact also this makes a great difference. Aside from the risk that the day urine may be affected by nourishment taken, or may contain albumen from any alcoholic, other factors affect it.

Sir William Roberts has shown that in healthy individuals the solid diurnal excretion is, per hour, twice as great as the nocturnal, and the liquid is four and a half times as great. Excretion is more active during the day than during the night in health, while in disease, as Claude Wilson (*Lancet*, June 29, 1889,) has pointed out, the nocturnal rate of excretion is always found to be increased, and is often even greater than the diurnal.

Such careful examinations of the urine can only be carried out with any measure of success in hospitals, but such investigations are of great value and should be still further pursued, as they tend to give us a clearer insight into many obscure diseases in which an ordinary examination of the urine has hitherto yielded little or nothing.

Miscellany.

TREATMENT OF TABES BY SUSPENSION.—At the last meeting of the Neurological Society of Berlin, Prof. Bernhardt reported the results of 220 suspensions in 19 cases of tabes. He concludes that suspension by means of Sayre's apparatus is a most valuable therapeutic agent in this disease. In almost every case he observed a decrease, if not disappearance, of the lancinating pains, improved walk, a diminution of ataxic symptoms, strengthening of the functions of the bladder, and improved mental and general physical condition.—*Deutsche med. Woch.*, May 16, 1889.—*Med. News.*

EFFECTS OF A DIMINUTION OF LIQUIDS,—A plan of treating certain forms of chronic disease by diminishing the liquor drunk having been recently proposed and practised by Professor Oertel, Dr. Karchargin resolved to make some observations on the effect produced on healthy persons by diminishing the amount of liquor ingested. His observations were conducted on six healthy students of the Military Academy, St. Petersburg, and during three periods of five days each. The ordinary amount of liquid was taken during the first and third of these, and a

smaller quantity (usually about 40 per cent. of the normal quantity) during the second period. The general conclusions arrived at were that diminution of liquids causes a distinct loss of weight, a feeling of malaise, a decrease in the quantity of urine excreted, but an increase in its specific gravity, a slight increase in the nitrogenous assimilation, and a slight decrease both in the character and amount of the nitrogenous metamorphosis. During the third period it was found that the weight increased and the feeling of malaise disappeared; the nitrogenous metamorphosis, too, returned to its normal amount, but remained of a lower grade than it had been before the quantity of liquid was reduced.—*Lancet.*

Medical Items.

The American Pharmaceutical Association lately met in San Francisco, with an attendance of 375 delegates.

The people of New Orleans are determined to do away with the system of surface drainage so long in use. They are agitating for underground drainage.

A London health inspector reported that a number of cases of diphtheria had been caused by cats going from house to house, and thus carrying the virus.

A petition has been addressed to the Municipal Council of Paris, praying for the substitution of electricity for the guillotine in the execution of capital sentences.

The Johnstown physicians proper are beginning to object to the various society physicians stationed there, as they say that the latter are treating every one regardless of ability to pay.

A German Odontological Society has recently been organized in Berlin under the presidency of Professor Busch. It will hold a general meeting and five scientific sittings every year.

The tapeworm had become a general form of malady in Servia; but much was done last year to get rid of this by careful sanitary precautions being taken by the veterinary staff in examining the swine and pork imported from other countries.

Dr. George Ross has been appointed Professor of Practice of Medicine and Dr. Richard L. MacDonnell Professor of Clinical Medicine in Mc Gill University, Montreal.

The preliminary announcement is out of the American Public Health Association, which holds its seventeenth annual meeting at Brooklyn N. Y., October 22, 23, 24, 25, 1889. Among the desiderata we notice that "all papers must be either printed, type written or in plain handwritting."

Dr. Ferdinand Hueppe of Wiesbaden has been appointed Professor of Hygiene at Prague. He is the sixth of Robert Koch's pupils who has been appointed to a professorship. The other five are Gaffky of Giessen, Wolffhuegel of Göttingen, Loeffler of Greifswald, Gaertner of Jena, and Bernhard Fischer of Kiel.

The New York Port-graduate Medical School and Hospital has just finished the most prosperous season of its career. Among the professors and instructors it has added to its *corps* this spring are Professor Ripley and Dr. H. J. Baldt. Dr. Emerson, the attending physician to the Manhattan Eye and Ear Hospital, was appointed to a professorship at the Post-graduate a few weeks ago.

The *Pharmaceutical Journal* gives the following test for antipyrin: Place in a test-tube a few grains of potassium nitrate, add a little water and then excess of strong sulphuric acid, and fill up the tube with the suspected liquid. A green coloration is immediately produced if antipyrin be present. This test is delicate and reliable and has the advantage of being specifically characteristic of antipyrin.

The Astley-Cooper prize, amounting to $1500, will be awarded in 1892. The question is, "The influence of Micro-organisms upon Inflammation." The papers of those contesting for the prize should be written in English, or accompanied by an English translation, and should be addressed, before January 1, 1892, to Guy's Hospital, London. The prize will not be awarded to two or three working together.

Professor Löwenthal, who has lately made experiments on the action of salol in cholera bacilli in Professor Cornil's laboratory in Paris, has received a special mission from the French Government to proceed to Tonquin, in order to study the effects of salol on cholera patients. Professor Löwenthal is for this purpose nominated a navy medical officer *à titre d' étranger*, but is allowed full liberty of action. This is the first time that the French Government has selected a member of another nation for such a post, and it well indicates the tendency of science to draw nations nearer together.

Original Articles

PRINCIPLES AND METHODS OF EXAMINATOIN IN ORTHOPÆDIC PRACTICE.*

BY HENRY LING TAYLOR, M. D.,
OF NEW YORK.

The investigation and treatment of joint affections and of deformities has won for itself a place as a distinct department of surgery, having its peculiar problems and special methods. The New York Orthopædic Society—now the Section on Orthopædic Surgery of the New York Academy of Medicine—founded some five years ago, and the American Orthopædic Association, founded two years ago, formally introduce the specialty into the sisterhood of organized medicine.

Scientific orthopædy is thus seen to be a rather recent arrival; and its principles and methods being still to a considerable extent under discussion, very little that is practical or reliable in the matter of methods of examination and early diagnosis has found its way into surgical teaching or general medical literature in such a manner as to become the common property of the profession.

As in several other branches of medicine the development of orthopædy has been hindered on the one hand by indifference, from a sort of surgical fatalism, like the common lay notion that in a case where only slight symptoms are present no treatment is needed, and when they are severe none is of avail; on the other hand by too great a willingness, not wholly confined to the laity, to entrust the solution of purely scientific problems to unscientific and untrained minds; one of the numberless varieties of that endless problem, how to get something out of nothing. The type of mind that sees in ophthalmology only a question of spectacles, will regard orthopædy as a question of braces—an error encouraged, it must be admitted, by much in special literature and practice—and as in the one case the peddier, the shop-keeper or the optician is appealed to, so in the other the blacksmith and the instrument-maker are consulted; and with similar results.

There is however at present a demand for the careful and intelligent study of joint and spinal affections, and it is vitally important that all should be familiar with reliable methods of examination and diagnosis.

My present object is to emphasize a few principles, which seem to me helpful in the recognition and discrimination of the early stages of the more common chronic affections of the spine and larger joints, especially the hip and knee, rather than to present an exhaustive study of methods or symptoms.

There is hardly any class of cases where so much good can be accomplished or so much evil prevented by an early diagnosis as in these affections. Early recognition of the seat and nature of the disease, which in the vast majority of cases rests with the family physician, with employment of treatment adapted to meet the indications present, will often enable the surgeon to arrest the disease, prevent deformity and save life, while an error in diagnosis or too much reliance on the hope that the beginning trouble "will be outgrown," is as frequently followed by consequences disastrous to the patient and distressing to the physician.

As many of the chronic joint and spinal diseases begin insidiously, and frequently without pain, or without characteristic pain—a fact long ago pointed out by Dr. C. Fayette Taylor*—it is easy to understand how the trouble may be for a long time overlooked, and when discovered its gravity underestimated.

Unless the symptoms follow directly on some traumatism or begin more acutely than is usual, we find that the attention of friends is generally first attracted by some peculiarity or awkwardness of gait or attitude, later by lassitude,

*Read before the Northwestern Medical and Surgical Society of N. Y., June 19th, 1889.

*1. The Mechanical Treatment of Angular Curvature or Pott's Disease of the Spine.—New York State Medical Society, 1863: and

2. On Some of the Elements of Diagnosis in the Different Stages of Diseases of the Hip Joint.—The Medical Record, May 8th, 1875.

disinclination to move about as freely as usual, restlessness at night, constitutional disturbance, and pain; and each of these symptoms calls for careful examination on the part of the physician, who should never rest satisfied until he has traced it to its source.

It is well known that the vast majority of our acts, movements and vital processes are involuntary and automatic, impressed upon the individual by his inheritance and experience through reflex mechanisms and easily modified by strong or unusual stimuli, whether from the outside world or from within the body itself. It is just these associated reflex movements and the tonicity of special muscular groups which require the closest study and give us the most valuable information in joint disease. As in health the temperament, occupation and even social standing† of an individual, and the more transient stimuli of heat, hunger, fatigue and their opposites, become stamped upon his expression, muscular tonicity, gait and attitude, so that we can tell a sailor from a landsman, a craftsman from a headworker, or a tired man from one who is fresh, by noticing the thousand phases of associated movements, so disease and particularly disease affecting the bony framework or joint structure of the body, conditions characteristic groupings of the ordinary attitudes and movements. Much that is really due to physical disability of one kind or another is charged to awkwardness or heedlessness. Joint and spinal troubles are a common but by no means the only cause of the disturbance.

A little girl who was always stumbling and breaking things and seemed to exercise small powers of observation was cured at eight years of age by consulting an oculist and treating a previously unsuspected but extreme myopia.

A young lady was brought ao me for a peculiar stiffness or awkwardness of gait. After careful examination I found no joint disease or paralytic affection, nothing in fact but a slight lateral curvature and a narrow chest, which did not explain the symptom. I treated the spinal asymmetry and gave her the "Respirator" ‡ for chest development, but the awkward walking persisted. I had previously inquired into the existence of uterine symptoms which were denied, but I finally urged an examination of the pelvic organs by a specialist. He found such severe retroflexion that he expressed surprise that she could walk at all.

Small tubercular foci in the spongy tissue of a vertebra or near the end of a long bone may remain comparatively quiescent for months or years, or give rise only at times to trifling lameness or some peculiarity of movement or attitude, and afterwards the disease encroach on the neighboring joint, and slowly and perhaps unconsciously modify muscular action and joint mobility, or else more rapidly produce severe and painful symptoms. Yet it is certain that a careful investigation of the causes of the periods of slight lameness or other disturbance, would in many cases have easily revealed the seat and nature of the irritation in time to have made possible the prevention of serious damage.

With this general idea of what we are to look for, how shall we proceed at the examination?

While the history of the case is being taken, the facies, attitude and movements of the patient, who ought not to be made to feel himself the object of attention, should be carefully observed. It will be important to notice whether the patient is well-nourished, and whether his appearance or movements indicate fatigue, strain or suffering, for the anxious and drawn countenance is often present in joint disease when local pain is denied. While the patient is undressing—every child should be disrobed—any movements indicating general irritation or local disability or distress should be carefully noted.

The patient should then be made to

†A lady who passed a season at Carlsbad told me that she was able to distinguish the seven or eight nationalities there present by the gait and carriage, Austrians who tried to imitate the French and Americans who aped the English were more easily recognized by this test than any other.

‡For description of the "Respirator" and its uses see an article entitled "The Therapeutic value of Systematic Respiratory Movements."—Medical Record, May 4th. 1889.

walk, get into and out of a chair, and pick something up from the floor. Analysis of the movements, and especially of the gait, will, in the majority of cases, indicate the correct diagnosis, even before the appearance of conscious pain or deformity. Indeed the orthopædic surgeon makes these observations instinctively as the patient walks into the room, and usually has a provisional diagnosis, which leads his line of inquiry by the time the patient is seated.

It is not necessary to describe in detail the gait and attitude characteristic of the various joint, spinal and paralytic affections. I merely wish to urge the vital importance of close observation of everything connected with movement and expression, since these will give us vastly more definite information than the patient's impressions in regard to his own condition, and may be quite as important as the results gained from local inspection.

As the countenance is apt to bear an anxious expression, so the movements are exceedingly apt to be cautious and protective in these beginning joint troubles. The patient takes exceeding "care" that the back or limb shall not be subject to sudden jars or wrenches; he perhaps lifts his limb with his hands in changing his position, or rests his chin on his palms to protect his vertebrae. This "care," or instinctive effort at protection, is usually present in some degree unless in the earliest and the youngest cases, and is exceedingly characteristic, but is to be carefully distinguished from the conscious apprehensiveness, often very extreme, of the hyperæsthetic sufferer from functional joint troubles. I have elsewhere § tried to indicate the difference. In joint neurosis "disability of the most varied character and imperfect co-ordination of the neighboring muscular reflexes are among the most common symptoms, and the most characteristic one is the visible though often unconscious accommodation of the reflexes of the entire body to the condition of the disabled member. * * * * It is usually more distinct and more widely distributed than the secondary reflex adjustments in joint disease, and somewhat different in character, possibly due to greater prominence of the cerebral element. If the patient have a lame ankle he is, so to speak, "ankle all over;" if it be a young woman with a backache, she presents every evidence in her conscious and unconscious life of the paramount influence of that region of the body. If we may speak of "care" as referring to attitude and movements in joint diseases, we may possible characterize as "apprehension" the phenomena referred to in these functional troubles. The "care" of a diseased joint is most distinctly noticed in distant reflexes when the joint is hurt or threatened with violence. Pain, especially in the earlier stages of joint disease, is rather paroxysmal in character and often absent; the patient frequently forgets his trouble and hurts his joint by too spontaneous movement In a neurotic joint affection, pain, while more constant, is not invariably a prominent feature, but, no matter what the distractions of the patient, the remotest muscular reflexes of the body are in a would-be-protective state of apprehension in a typical case. This influence can often be distinctly perceived in the expression of the face and the tone of the voice, as well as in the peculiar mental attitude of the patient; the perceptions, emotions, and intellect will frequently revolve around a knee or a back for a centre as plainly as the muscular reflexes."

Proceeding now to the examination of local conditions, our object will be to critically estimate the tonicity and responsiveness of the muscular groups acting on the suspected joint, the position and mobility of the joint, and the physical appearance of the surrounding parts, as to swelling, wasting and other deviations from the normal. In testing motion we always begin with the *sound* ‖ limb in order to eliminate apprehension and active participation as much as possible.

Suppose the hip is suspected. We

§ "Hygiene of Reflex Action," Journal of Nervous and Mental Disease, March, 1888.

‖ Dr. C. Fayette Taylor's invariable practice so long as I can remember.

make gentle movements at the hip, beginning on the sound side, while the patient is seated, and then ask him to cross one leg over the other; this he will be rarely able to do on the suspected side, if the joint is diseased.

The patient is then placed on his back on the flat examining couch and the gentle movements of the joint, always beginning on the sound side, are continued, one hand being firmly placed on the pelvis to ascertain whether it moves with the thigh, the object being rather to determine the quality than the quantity of motion. Such tests in various directions will almost infallibly reveal the greater or less "reluctance to relax" (independent of cerebral interference), usually with more or less jerky spasmodic action of certain muscles and limitation of motion so characteristic of joint disease from the earliest stage. The crucial test will be to turn the patient upon his face and test hyper-extension, (sound side first), where limitation will invariably be evident if joint trouble is present.

I have said little about pain because as a diagnostic sign it is not to be depended upon. We know that knee pain often exists with hip disease, and that it is perhaps still more often absent. When present the hip should always be examined. Cases where all pain is denied until the disease is well advanced are not rare; and hip or knee pain may exist with no joint disease at all. Irritability and restlessness at night, with cries or night-mare, are much more suggestive of joint disease in the early stages than local pain, and these may be present in marked degree without conscious or remembered pain. This being the case, it is difficult to imagine the object of the rough manipulations so often seen in surgical examinations of the joints. Whether or not pain or tenderness is elicited by these procedures no information of value is derived, and they are not free from danger. I remember very well a young man shown at a medical meeting, who seemed to be suffering from a diseased hip, of whom a noted surgeon then present stated that he was sure that when he first examined him some months previous no joint disease existed, but admitted the possibility of the starting up of the disease from his rough manipulations. When such results are possible from methods not rarely employed, is it not time to call a halt, even if the use of violence were not as stupid as it is dangerous? I have seen other patients who have been frightened and cruelly hurt at examinations; any approach to roughness defeats the object of the examination and should not be tolerated.

In the knee we have a joint very often affected and admirably fitted by its size and accessibility for investigation, but mistakes in diagnosis, especially as between functional and organic disease, are exceedingly common. We test here also the tonicity and activity of the muscles, and if bone enlargement or synovial distension is present these can hardly escape close observation. Too much attention to pain and tenderness about the joint will only distract our attention from the really diagnostic features. There will be no organic disease of the joint without reflex muscular spasm, or without some limitation of extension at the knee. No matter how painful the joint, if complete extension without violence is possible, disease of the joint can hardly be present; and it is to be remembered that functional knee trouble, which is often accompanied by pain and limitation of motion, is exceedingly common, whether as a primary affection or following in the wake of some slight injury.

These patients will sometimes relate a history not inconsistent with that of joint disease, but I have learned to take a patient's estimate of appearances and conditions with considerable allowance. They will often relate that swelling has existed or still exists, when measurements show the affected limb to be the smaller of the two. Restraint of a limb will usually cause an appreciable wasting with a change of contour, which the patient, fearing inflammation, takes for swelling; and it is also true that actual swelling, especially a boggy relaxation of the tissues, may exist, and that a state of local malnutrition and consequent organic disability may follow.

Some of these cases have a habit of

keeping the knee stiffly extended while sitting, a position impossible to the sufferer from joint disease. Careful analysis of the facts developed by the general and local examinations should make the diagnosis clear.

In many of these cases the functional nature of the trouble has been clearly recognized, but either it has been aggravated by local treatment, which is uncertain and sometimes harmful in its effects, or the sufferer has lost confidence from being told that "there is nothing the matter," a statement which besides being untrue adds a new difficulty to the management of the case.

Many get well without being diagnosed, under the routine treatment of iodine, blisters, firing, local applications, bandages, etc., but many prove exceedingly obstinate until their real nature is recognized and indicated treatment adopted, when an apparently hopeless deformity or disability often clears up like magic.

In suspected caries of the vertebrae a careful study of attitude and movements, alone suffices to enable us to make the diagnosis with great certainty, and in most cases before the appearance of deformity.

"There is a peculiar carefulness in the step; an instinctive poising of the body to avoid all shocks; an indescribable expression of the whole person and every attitude and motion, which exists in this disease, and in this disease alone. The toes are turned slightly inward; the shoulders and elbows are drawn backward; the chin is thrown upward; the gait is sliding; the patient catches hold of objects in passing them, and when he stops, he leans heavily on his mother's lap or whatever object may be near him. All this indicates the presence of the disease as clearly as a peculiar eruption indicates the measles."*

The back muscles are rigid and the sufferer reaches the hand down by the side in picking an object from the floor to avoid stooping. If to these symptoms pain in the side or bowels, restlesssness at night and a careworn look are added the presence of deformity† is hardly needed to complete the picture.

"And we should always bear in mind, when this disease is suspected, that to wait for the projection to appear is to wait for the destruction of the vertebrae. It is to throw away the golden moment for arresting the disease in its incipiency. We must remember that the curvature is the result of the disease and not the disease itself."

Pain referred to the terminal filaments of the intercostal and lumbar nerves in the side and abdomen is frequently an early and always a suggestive symptom but is not rarely absent. But the spinal tenderness so sedulously sought for by many is never present unless from the too frequent or too vigorous efforts of the examiner, or other adventitious cause. Pain in the back is seldom complained of and never characteristic of this condition. The only case of disease of the spine in which I saw it markedly developed, proved to be a cancer of the vertebrae.

For purposes of record rather than of diagnosis the patient should be placed on the examining couch, face down, and the spinal contour taken by means of a flexible lead strip, which is afterwards traced on pasteboard and kept for reference. The minutest changes in outline during the progress of the case can thus be readily recognized. These children should always be lifted by placing one hand under the seat, the other in front of the chest, and all the manipulations of the examiner should be of the gentlest; any rough handling is cruel, unnecessary and harmful.

The cases most easy to overlook are those that cannot walk. In a case of pressure paraplegia without marked deformity, seen some years ago, the vertebral disease escaped the notice of the attending physician and house staff, including myself, during six months of hospital treatment.

Lateral curvature of the spine, being a deformity due to loss of equilibrium, not to bone disease, is not characterized

*1. Op. cit. 1.

†2. It should be remembered that an *angular lateral* deformity sometimes appears early in this disease.

by the special modifications of associated movements due to inflammatory processes, and the preliminary examination is relatively of less importance; but here, as in all orthopædic cases, the gait and attitude should be carefully studied. The history, especially as bearing on the temperament, mental habits, schooling, etc., of the patient should be thoroughly inquired into, and will often in early cases furnish the key to the causes and cure of the affection.

In making the examination, the back and hips of the patient should be exposed and the patient seated on a low stool before the examiner. In this position the contours of the body, hips, spine and shoulders can be observed, spinal mobility tested, and chest expansion measured. The patient then stands up, the back being still turned to the examiner, and while the patient stands squarely on the feet, the knees being straight, the horizontal hands of the examiner are forced inward over the iliac crests to ascertain any pelvic obliquity that may exist. After this has been done, if the patient bends forward at the hips until the body makes a right angle with the legs, the arms hanging, any rotation will be plainly shown. It is of less importance to ascertain the exact line of the spinous processes than to study the lateral contours of the body, any fulness or flatness at the side of the spine, the position of the hips, and spinal mobility.

Too much stress should not be laid on backache or spinal tenderness; these are undoubtedly present in a certain proportion of cases but there is no necessary connection between them and ordinary lateral curvature, which, indeed, has no rational symptoms until rotation is so great as to cramp the viscera.

Spinal tenderness, usually superficial and often severe, and "backache" are nearly always referable to general causes or to the condition of the nervous system. In states of anæmia, nervous depression and brain-tire, backache and spinal tenderness are a characteristic symptom. These cases of "backache" may be exceedingly obstinate and distressing, but are usually amenable to hygienic and tonic treatment after the removal of the predisposing causes. Systematic active and passive movements are of great value and assist in that regulation of the psycho-physical life which is often essential to a cure.

Leaving aside round-shoulders, the diagnosis of which is obvious, nearly all the back cases which present themselves will be found to fall into these three classes of spinal caries, lateral curvature and "backache," which it is of the utmost importance to clearly discriminate from the start, as the treatment is radically divergent.

I call particular attention in closing to:

1. The necessity for the critical analysis of any deviation from the normal carriage or locomotion, especially during the growing period, and for a careful study of expression and movement in its widest sense, as revealing the effect of general strain and local irritation.

2. The value of specially testing the tonicity of the muscle groups, acting upon a joint where disease is suspected.

3. The unreliability of pain and tenderness as a diagnostic sign in the early stages of joint disease, and the inadmissibility of rough manipulations to elicit them.

201 West 54th Street.

CONSIDERATIONS CONCERNING SOME EXTERNAL SOURCES OF INFECTION IN THEIR BEARING ON PREVENTIVE MEDICINE.*

(*Continued from page* 208.)

BY WILLIAM H. WELCH, M. D.,

Professor of Pathology, Johns Hopkins University.

In order to become infected with bacteria in or on the ground, these bacteria must in some way be introduced into the body and we must, therefore, now at-

*The Address in State Medicine delivered before the American Medical Association at Newport on June 28, 1889.

tempt to determine how bacteria may be transported to us from the ground. So various and intricate are the possibilities for this transportation that it is hopeless to attempt to specify them all.

There occurs to us first the possibility of the conveyance of infectious microorganisms from the soil by means of currents of air, a mode of carrying infection which has already been considered. Here I shall only repeat that the wind can remove bacteria from the ground only when the surface is dry and presents particles of dust, and that the sole, and perhaps the chief, danger is not that we may inhale the infected dust.

Manifold are the ways in which we may be brought into contact with infectious bacteria in the ground, either directly or by means of vegetables to which particles of earth are attached, by the intervention of domestic animals, by the medium of flies or other insects, and in a variety of other ways, more or less apparent.

An important, doubtless for some diseases the most important, medium of transportation of bacteria from an infected soil is the water which we drink or use for domestic purposes. From what has been said it is evidently not the sub soil water which is dangerous, for infections like other bacteria cannot generally reach this in a living state, but the danger is from the surface water and from that which trickles through the upper layers of the ground, as well as from that which escapes from defective drains, gutters, cess-pools, privy vaults and wrongly constructed sewers or improper disposal of sewerage. I shall have something to say presently of water as a source of infection, and shall not further elaborate here the dangers of infection of drinking water through contaminated soil, dangers which, especially as regards typhoid fever, are widely appreciated in this country, even if often imperfectly counteracted.

A point which has been much discussed and one of interest is, whether bacteria which are in the depth of the ground can come to the surface. Two agencies especially have been considered by some as capable of transporting bacteria from the depth to the surface. One is ascending currents of air in the ground and the other is the capillarity of fluids in the minute pores of the ground. The first of these suspected agencies must be unquestionably rejected in view of the fact that even a few inches of sand is sufficient to filter all of the bacteria out of the air, even when it is in much more rapid motion than can occur within the ground. Moreover, that degree of dryness which is essential for the detachment of bacteria by air-currents is not likely to be present much below the surface of the ground. The experiments which have been made to determine to what extent bacteria may be carried upward by the capillarity of fluids in the ground have not yielded harmonious results, but the weight of evidence is opposed to the belief that this is a factor of any considerable importance for this purpose.

From what has been said concerning the growth of pathogenic bacteria in the soil we shall not be inclined to attribute to the multiplication and the motility of these organisms much influence in changing their places in the ground.

The somewhat sensational rôle assigned by Pasteur to earthworms of bringing bacteria to the surface cannot be wholly ignored and has received support from observations of Bollinger regarding anthrax, but it is questionable whether much importance is to be attached to this agency.

Regarding the depth to which typhoid bacilli may penetrate in the soil, the experiments of Grancher and Deschamps shows that at the end of five week they may reach a depth of 16 to 20 inches below the surface. As Hoffmann has demonstrated the extraordinary slowness with which fluids and fine particles penetrate the soil, it is probable that in the course of time a greater depth than this may be reached. Indeed, Macé claims to to have found in the neighborhood of a well, suspected of infection, typhoid bacilli, together with ordinary intestinal bacteria, at a depth of at least 6½ feet below the surface. There are a number of instances recorded in which there is

good reason to believe that turning up the soil and cleaning out privies or dung-heaps in which typhoid stools have been thrown, have given rise to typhoid fever, even after the infectious excreta have remained there a year or more.

It cannot be said that bacteriological investigations have as yet shed much light upon a factor which plays a great rôle in epidemiology, namely, predisposition to infection from the ground, according to locality and time, and this deficiency receives constant and vehement emphasis from the localistic school of epidemiologists. We can, however, readily understand that varying conditions, such as temperature, moisture, porosity, quality of soil, may exert a controlling influence in determining the behavior of infectious germs in the soil and the facility of their transportation to human beings or animals. As regards that much-discussed question, the significance of variations in the height of the sub-soil water, in relation to the prevalence of certain epidemic diseases, particularly cholera and typhoid fever, we now know that this cannot depend upon the presence of bacteria in the sub-soil water itself or in the capillary layers immediately above it. It has been plausibly suggested that with the sinking of the sub-soil water fluids from infected cess-pools, privy vaults, and other localities may more readily be drawn into wells or other sources of water supply, and that by the same cause the surface of the ground becomes dry so that dust particles may be lifted by the wind. Other more or less plausible explanations have also been offered, but it must be confessed that our positive information on the point is meagre. There can, however, be little doubt that this significance of the variations in sub-soil water is apparent only for certain localities and has been considerably exaggerated and often misunderstood. It is not, however, pertinent to my theme to discuss this or other purely epidemiological observations concerning the relations of the ground to the spread of epidemic diseases, interesting and important as are many of these observations.

Before leaving the subject of the ground as a source of infection, permit me to indicate briefly some conclusions which may be drawn from what has been said as to the principles which should guide us in preventing infection directly or indirectly from the ground.

First in importance is to keep infectious substances so far as possible from the ground. This implies the early disinfection or destruction of such substances as typhoid and cholera excreta and tuberculous sputum.

Second. The ground should be rendered so far as practicable unsuitable for the continued existence of infected germs. This, at least for some diseases, is accomplished by a proper system of drainage, which, moreover, for other reasons possesses hygienic importance.

Third. Means should be provided to prevent waste products from getting into the ground around human habitations or from gaining access to water used for drinking or domestic purposes. In cities this can be accomplished only by a properly constructed system of sewers. The system of storing waste products in cess-pools whence they are to be occasionally removed cannot be approved on hygienic grounds. There are conditions in which the disposal of waste products in deep wells only used for this purpose and whence these products can filter into the deep layers of the ground may be permissible, but this can never be considered an ideal method of getting rid of excrementitious substances, and is wholly wrong in regions where wells are used for drinking water. But I am trespassing with these remarks upon a province which does not belong to me, but rather to practical sanitarians and engineers. I shall only add that the advantage gained by preventing organic waste from soaking into the ground is not so much that the ground is thereby rendered better adapted for the existence of infectious micro-organisms, but is due rather to the fact that this waste is likely to contain infectious germs.

Finally, in cities, good pavements, absence of unnecessary disturbance of the soil, cleanliness of the streets, and laying of dust by sprinkling are not only conducive to comfort, but are sometimes hy-

gienically important in preventing infection from the ground and dust.

In passing from the consideration of the ground to that of water, one feels that he now has to do with a possible source of infection against which in this country and in England he is at liberty to make any accusation he chooses without fear of contradiction. There is reason to believe that such accusation has been repeatedly made without any proof of misdemeanor on the part of the water. It is not, therefore, with any desire to awaken further the medical or the public conscience that I wish to say a few words concerning the behavior of bacteria in water and the dangers of infection from this source. That such dangers are very real must be apparent when we consider the universal employment of water and its exposure to contamination from all kinds of sources.

Ordinary water, as is well known, contains bacteria in large number. Not a few species of bacteria can multiply rapidly and to a large amount even in distilled water. These are the so-called water-bacteria, and like most of the micro-organisms found in ordinary drinking water are perfectly harmless saprophytes. What we wish to know is, how pathogenic micro-organisms conduct themselves in water. Can they grow or be preserved for any length of time in a living condition in water? As regards the multiplication of pathogenic bacteria in water the results of different experimenters do not altogether agree. Whereas Bolton failed to find any growth, but rather a progressive diminution in the number of pathogenic bacteria planted in sterilized water, Wolffhügel and Riedel observed a limited reproduction of such bacteria, including those of typhoid fever and cholera. This difference is due, probably, to the methods of experimentation employed. According to Kraus, these latter bacteria diminish rapidly in number in unsterilized spring or well water kept at a low temperature. These experiments indicate that water, even when contaminated with more organic impurities than are likely ever to be present in drinking water, is not a favorable breeding place for pathogenic bacteria. Still it is to be remembered that these laboratory experiments do not reproduce exactly all of the conditions in nature, and it may happen that in some nook or crauny or vegetable deposit at the side of a well or stream some pathogenic bacteria may find suitable conditions for their multiplication.

But as has been repeatedly emphasized in this address it is not necessary that pathogenic bacteria should actually multiply in a medium in order to render it infectious. It is sufficient if their life and virulence are not destroyed in a very short time. As to this important point Bolton found that in sterilized water typhoid bacilli may preserve their vitality for over three months and cholera bacteria for 8 to 14 days, while Wolffhügel and Riedel preserved the latter in water for about 80 days. Under natural conditions, however, these organisms are exposed to the over-growth of the water bacteria so that Kraus found in unsterilized water kept at a temperature of 10.5° C. (50.9° F) the typhoid bacilli no longer demonstrable after 7 days, and the cholera bacteria after 2 days. The conditions in Kraus's experiments were as unfavorable as possible for the continued existence of these pathogenic bacteria, more unfavorable than those often present at the season of prevalence of cholera and typhoid fever, nevertheless I do not see that they justify the conclusions of Kraus as to the slight probability of drinking water ever conveying infection with the germs of typhoid fever and cholera. To render such a conclusion probable it would be necessary to demonstrate a much shorter preservation than even Kraus himself found. In judging this question it should not be overlooked that infection of drinking water with the typhoid or the cholera germs is not so often the result of throwing typhoid or cholera stools directly into the source of water supply as it is the consequence of leaky drains, cess-pools, privy-vaults or infected soil, so that there may be continued or repeated accessions of infected material to the water.

In view of the facts presented, there is no sufficient reason, therefore, from a bacteriological point of view, of rejecting

the transmissibility of typhoid fever and cholera by the medium of the drinking water. This conclusion seems irresistible when we call to mind that Koch once found the cholera bacteria in large number in the water of a tank in India, and that the typhoid bacilli have been repeatedly found in drinking water of localities where typhoid fever existed. Nor do I see how it is possible to interpret certain epidemiological facts in any other way than by assuming that these diseases can be contracted from infected drinking water, although I know that there are still high authorities who obstinately refuse to accept this interpretation of the facts.

In this connection it may be mentioned that pathogenic bacteria may preserve their vitality longer in ice than in unsterilized drinking water. Thus Prudden found typhoid bacilli still alive which had been contained in ice for 103 days.

When we come to consider the ways in which water may become infected with pathogenic micro-organisms we recognize at once a distinction in this respect between surface water and sub-soil water. Whereas the sub-soil water may be regarded under ordinary circumstances and in most places as germ-free, the surface water, such as that in rivers and streams, is exposed to all manner of infection from the ground, the air, and the direct admission of waste substances. Unfortunately in the ordinary way of obtaining sub-soil water for drinking purposes by means of dug wells this distinction is obliterated, for the water which enters these wells free from bacteria is converted into a surface water often exposed, by the situation of the well, to more dangerous contamination than other surface waters used for drinking purposes.

Now let us turn our attention as we have done with other sources of infection to a brief outline of certain general principles which may help us in avoiding infection from the water.

We shall in the first place avoid so far as possible the water suspected of infection, epecially with the germs of such disease as typhoid fever and cholera. When it is necessary to use this suspected water it should be boiled.

As regards the vital question of water supply, it may be stated as a general principle that no hygienic guarantee can be given for the purity of surface water which has not been subjected to a proper system of filtration, or for the purity of spring or well water fed from the sub-soil unless such water is protected from the possibility of infection through the upper layers of the soil or from the air. This is not saying that water which meets certain chemical and biological tests and which is so situated that the opportunities for its contamination appear to be absent or reduced to a minimum is not admissible for the supply of drinking water, but the possibility of infection can be removed only by the fulfillment of the condition named, and upon these conditions the hygienic purist will always insist.

Unfortunately we have at present no domestic filters which are satisfactory and most of these in common use a worse than none, as they soon furnish a filtrate richer in bacteria than the original water. The only effective method of water-filtration for the general supply is by means of large sand filters such as are in use with excellent results in Berlin and some other cities. These require skilled attention. I cannot on this occasion discuss the construction or working of these filters but would refer those who are interested to the full and careful investigations of the Berlin fiilters by Wolffhügel and by Plagge and Proskauer.

What is accomplished by these artificial sand filters is accomplished under natural conditions, also by the ground, which furnishes a sub-soil water free from micro-organisms, and to obtain pure water we have only to devise means by which this sub-soil water may be secured without the chance of contamination. Just as the water, which has passed through the sand filters, is collected in suitable reservoirs and is distributed in pipes, which do not admit contamination from without, so by means of properly constructed artesian or driven wells we may secure the naturally filtered sub-

soil water with the same freedom from the chances of infection.

It is well to bear in mind that no biological or chemical tests of water can replace those measures which have been mentioned as necessary to secure purity of water supply. These tests are of value only when applied with proper precautions and with due consideration of the special circumstances of each case for which they are employed. There has been much profitless discussion as to whether greater significance is to be attached to the chemical or to the bacteriological examination of water. Each has its own special field of application and in this the one cannot replace the other method. The bacteriological examination has for hygienic purposes the specific agents of infection in the form of micro-organisms, as has already been done for cholera bacteria and typhoid bacilli, but this is a comparatively rare result and does not at present afford a wide field of application for this method. The significance of the bacteriological test is to be based more frequently upon the fact that it concerns itself with the same class of micro-organisms to which some of the recognized and doubtless many of the undiscovered infectious agents belong and from the behavior of which in some respects conclusions can be drawn as to the behavior of the pathogenic organisms. Thus the bacteriological test is the only one which enables us to judge correctly of the efficacy of those methods of filtration of surface water and of construction of wells which insure purity of water supply. The points of view from which we can estimate correctly according to our present knowledge the relative merits and fields of application of the chemical and of the bacteriological methods of water examination have been clearly indicated by Plagge and Proskauer and by Wolffhügel. The theme is one beyond the limits or the scope of this discourse and I have referred to it chiefly to emphasize the fact that we cannot rely upon chemical or bacteriological tests of water to the exclusion of those protective measures which have been mentioned, although I do not intend to imply that each of these tests when properly employed does not afford important information and is not of great value in many cases.

I have already taxed so largely your time and patience that I must pass over with brief mention the food as a source of infection. Unlike those external sources of infection which we have hitherto considered, many articles of food afford an excellent nutritive medium for the growth of a number of species of pathogenic micro-organisms, and in many instances this growth may be abundant without appreciable change in the appearance or taste of the food.

When we consider in how large degree the certainty and the severity of infection with many kinds of pathogenic micro-organisms depend upon the number of such organisms received into the body, we can appreciate that the danger of infection from food which contains a mass of growing pathogenic bacteria may be much greater than that resulting from the reception of infected water or air, media in which infected organisms are rarely present in other than a very dilute condition. The entrance into the body of a single infectious bacterium with the inspired air is, at least in the case of many many diseases, not likely to cause infection, but let this bacterium fall upon some article of food, as for instance milk, where it can multiply in a short time at a favorable temperature many thousand fold, and evidently the chances of infection become vastly increased.

Among the various agencies by which infectious organisms may gain access to the food may be mentioned the deposition of dust conveyed by the air, earth adhering to vegetables, water used in mixing with or in the preparation of food, in cleansing dishes, clothes, etc., and contact in manifold other ways with infected substances.

Fortunately a very large part of our food is sterilized in the process of cooking shortly before it is partaken, so that the danger of infection from this source is greatly diminished and comes into consideration only for uncooked or partly cooked food and for food, which, although

it may have been thoroughly sterilized, is allowed to stand considerable time before it is used. Milk, in consequence of its extensive use in an unsterilized state and of the excellent nutritive conditions which it presents to many pathogenic bacteria, should be emphasized as especially liable to convey certain kinds of infection, a fact supported not less by bacteriological than by clinical observations. Hesse found that also a large number of ordinary articles of food prepared in the kitchen in the usual way for the table and then sterilized afford a good medium for the growth and preservation of typhoid and cholera bacteria, frequently without appreciable change in the appearance of the food.

Upon solid articles of food bacteria may multiply in separate colonies, so that it may readily happen that only one or two of those who partake of the food eat the infected part, whereas with infected liquids, such as milk, the infection is more likely to be transmitted to a larger number of those who are exposed.

In another important particular the food differs from the other sources of infection which we have considered. Not only the growth of infectious bacteria, but also that of bacteria incapable of multiplication within the body, may give rise in milk and other kinds of food to various ptomaines, products of fermentation and other injurious substances which when ingested are likely to cause more or less severe intoxication or to render the alimentary tract more susceptible to the invasion and multiplication of genuinely infections organisms.

It is plain that the liability to infection from food will vary according to locality and season. In some places and among some races the proportion of uncooked food used is much greater than in other places and among other races. In general, in summer and in autumn, the quantity of fruit and food ingested in the raw state is greater than at other seasons, and during the summer and autumn there is also greater danger from the transportation of disease germs from the ground in the form of dust and the amount of liquids imbibed is greater. The elements of predisposition, according to place and time upon which epidemiologists are so fond of laying stress, are not, therefore, absent from the source of infection now under consideration.

I have thus far spoken only of the secondary infection of food by pathogenic micro-organisms, but, as is well known, the substances used for food may be primarily infected. Chief in importance in the latter category are the various entozoa and other parasites which infest animals slaughtered for food. The dangers to mankind resulting from the diseases of animals form a separate theme, which would require more time and space than this address affords for their proper consideration. I shall content myself on this occasion with only a brief reference to infection from the milk and flesh of tuberculous cattle.

It has been abundantly demonstrated by numerous experiments that the milk from tuberculous cows is capable when ingested of causing tuberculosis. How serious is the danger may be seen from the statistics of Bollinger who found with cows affected with extensive tuberculosis the milk infectious in 80 per cent. of the cases, in cows with moderate tuberculosis the milk infectious in 66 per cent. of the cases and in cows with slight tuberculosis the milk infectious in 33 per cent. of the cases. Dilution of the infected milk with other milk or with water, diminished or in sufficient degree it removed the danger of infection. From statistics furnished me by Mr. A. W. Clement, V. S., it appears that the number of tuberculous cows in Baltimore which are slaughtered is not less than 3 to 4 per cent. Among some breeds of cattle tuberculosis is known to be much more prevalent than this.

There is no evidence that the meat of tuberculous cattle contains tubercle bacilli in sufficient number to convey infection, unless it be very exceptionally. Nevertheless one will not willingly consume meat from an animal known to be tuberculous. This instructive repugnance, as well as the possibility of post-mortem infection of the meat with tubercle bacilli in dressing the animal seem good grounds for discarding such meat. The question, however, as to the rejec-

tion of meat of tuberculous animals has important economic bearings and has not been entirely settled. As to the rejection of the milk from such animals, however, there can be no difference of opinion, although this is a point not easily controlled.

The practical measure to adopt in order to avoid infection from the food are for the most part sufficiently obvious. Still it is not to be expected that every possibility of infection from this source will be avoided. It is difficult to discuss the matters considered in this address without seeming to pose as an alarmist. But it is the superficial and the half knowledge of these subjects which is most likely to exaggerate the dangers. While one will not under ordinary circumstances refrain from eating raw fruit or food which has not been thoroughly sterilized or from using unboiled or natural waters in the fear that he may swallow typhoid or cholera bacteria, still in a locality infected with cholera typhoid fever he will, if wise, not allow himself the same freedom in these respects. Cow's milk, unless its source can be carefully controlled, should when used as an habitual article of diet as with infants, be boiled or the mixed milk of a number of cows should be selected, but this latter measure offers less protection than the former.

In most places in this country we are sadly lacking in good sanitary inspection of the food, especially of the animal food, offered for sale. One cannot visit the slaughter-house in Berlin or in Munich, and doubtless similar ones are to be found elsewhere, and watch the intelligent and skilled inspection of the slaughtered animals without being impressed with our deficiency in this respect. In large cities an essential condition for the efficient sanitary inspection of animal food is that there should be only a few places, and preferably only one place, where animals are permitted to be slaughtered. Skilled veterinarians should be selected for much of the work of inspection.

It may reasonably be asked that the National government which has already spent so much money for the extermination of such diseases as pleuro-pneumonia and hog cholera, which are not known to endanger the health of mankind, should turn its attention also to means for eradicating tuberculosis from cattle, which is scourge not only to the economic interests of farmers and dairymen, but also to the health of human beings.

Without any pretension to having done more in this address than to sketch here and there a few principles derived from bacteriological researches concerning only some of the most widely distributed external sources of infection, I trust that enough has been said to show the folly of any exclusive dogma as to modes of infection. The ways of infection, even in one and the same disease, are manifold and various, and can never be resolved into exclusive hypothesis, such as the drinking water hypothesis, the ground hypothesis, etc.

It follows, therefore, that it is not by sanitary improvements in one direction only that we can control the spread of preventable epidemic diseases. In one situation improvements in the supply of drinking water check the prevalence of typhoid fever, in another place similar measures show no such influence; or, again, in one city the introduction of a good system of sewerage diminishes epidemic diseases, and in another no similar result follows. We should, therefore, aim to secure so far as possible good sanitary arrangements in all directions and in all respects.

It has also been rendered evident in what has been said that infectious agents differ markedly from each other in their behavior, so that while public sanitation aims at those measures which are found to be most widely beneficial, it should not forget that each infectious disease is as much a separate problem in its prophylaxis as in its symptomatology, etiology and treatment. It will not aim to combat cholera with the means found best adapted to scarlet fever, but it will adapt preventive measures as directly to the specific end in view as possible.

In presenting to you the results of researches, chiefly bacteriological, concerning the scientific basis of preventive medicine, I hope to escape the accusation of one-sidedness and narrowness by the

statement that I do not for a moment intend to imply that the bacteriological method is our only source of accurate knowledge on the subjects which have been considered. My aim is accomplished if I have succeeded in making clear that this method has established facts which aid in a clearer conception of the causes of some important infectious diseases, in a better understanding of the sources and dangers of infection, and in a more efficient selection and application of sanitary measures.

If this science of only a few years' growth has furnished already acquisitions to knowledge so important, so far reaching, may we not look forward with assurance to the solution of many dark problems in the domain of infectious diseases, problems the solution of which may yield to preventive medicine a future of usefulness and success which we can not now foresee.

Correspondence.

TOO MUCH CHARITY.

BALTIMORE, June 24th, 1889.

Editor Maryland Medical Journal:

DEAR SIR:—I am glad somebody has had the courage in the face of all this hot weather to start the ball rolling again in regard to the time-worn topic "Too much Dispensary Work."

That there is just cause for any such cry is only too true, in proof of which, let any unbiased observer take a stand in the Dispensary of such institutions as the Presbyterian Eye and Ear Hospital, the Johns Hopkins or any of the other well-known places where respectable people are encouraged to become beggars for aid they would spurn were it offered in any form other than medical charity. See the people who go there well dressed, in many cases in silks and bedecked with jewelry and then ask how is it to be expected that young men shall gain any practice at all worth having, even after waiting his probational three or four years for the unwary "fly to walk into his parlor."

To be connected with the latter named institution, it is currently reported, that there are to be a number of physicians appointed to attend people in their homes, no doubt, also in the very same indiscriminate way as the dispensaries are run. Where, oh where, will the young man go, or the old one either, for that matter?

Most of us enter the practice of medicine, because we conceive it to be that department of life for which we are best suited, and because we really like the study. A very few enter it for the most philanthropic purposes, they are of necessity only such as have had wealth left them: the rest of us must gain our livelihood by this study and it is but just that we should look to practice to give us the means of sustenance.

The profession and age are demanding, and rightly too, a higher education of the men who enter its ranks. What advantages will a man have, who gives the first twenty-five or thirty years of his life to the study of a branch which afterwards closes as tightly as it can, every avenue of possible gain to reward him for his efforts?

What would our business men say if the city and some rich philanthropist would start a fund to give bread and groceries to whomsoever might ask and ask no questions of the supplicant whether it was needed or not?

No one denies the needs for dispensaries and free hospitals, yet there are but few in this city which are not a positive menace instead of a good.

We are all willing and glad of an opportunity to help the unfortunate and none more so than the physicians, of whom there are precious few who do not attend willingly a number of families without any other reward than the fact of doing a good deed.

What we need is some good "brainy" fellow to suggest a means out of the quagmire and he will call down on his head the universal enconiums of all his fellow practitioners.

FOR THE GOOD OF THE PROFESSION.

HIGHER MEDICAL EDUCATION.

Editor Maryland Medical Journal:

Dear Sir;—The National Medical College of Washington is one of the oldest and most respectable schools in the United States, It is the medical department of Columbian University. It enjoys the honor, I believe, of having been the first in the South to adopt a three years course. During the ten years that have elapsed since this step was taken, far from having suffered by it, the classes have increased steadily in numbers and the institution has flourished in other ways. Noting this fact in the work published by the Illinois State Board of Health on the "Medical Schools of the United States and Canada," I wrote to my friend Professor D. W. Prentiss, for a confirmation of it, and I herewith enclose his answer which in the interest of higher medical education, I hope you will publish. If this can be done in Washington, why can it not be done in Baltimore also?

Yours, etc.,

E. F. C.

We have had the graded course in operation about ten years, and the college has steadily increased its members ever since its introduction.

Last winter we had five times as many students as when I became connected with the Faculty ten years ago. Of course some students were discouraged by the three years demand, but for one lost in this way I am sure four were gained. I send catalogue which will give details,

Two years ago we established a Dental department, with a two years course. This year the requirement of three years is also made of the Dental students.

We found this necessary if Dental students are to be required to pass examination on chemistry, physiology, anatomy and materia medica (as they are.)

At the final examination this year nearly all the Dental students were rejected on above branches.

That this requirement of Dental students will keep away many, I have no doubt, for most of the schools have a two years course, but we are determined to graduate none who are not qualified and few *can* qualfy in two years.

In the medical department a large number of the graduates take a four years course, and it is in contemplation to make it obligatory, in order that more time may be given to laboratory work, and the microscope, during the first two years.

The preliminary examination required is principally on English branches, history, grammar, arithmetic, orthography, etc., and is not perhaps as rigid as it should be. It is probable that this requirement will be increased. As to clinics, we have abundant facilities at the Children's Hospital, Garfield Hospital and the various dispensaries.

Very sincerly yours,

D. Webster Prentiss.

The Physicians of Johnstown.—The Maryland Medical Journal has received and distributed funds for the physicians of Johnstown who lost their all, Dr. J. W. Hamer being its almoner. Other journals may have done the same thing, but the Baltimore weekly is the first one that has fallen under our notice. There are physicians in the afflicted valley who before the floods were accounted well off, who now have not a penny except what comes to them as a gift or as payment for services. And some of them now complain that the visiting volunteers of the Red and Yellow Cross are taking professional business away from them, so that the earnings and the occupation—both of which would be helpful to them—go to those who need neither. They have made representations of these conditions to the State authorities, but their complaints were not entertained. If any funds collected by medical men or societies remain unforwarded, we suggest that the journal above named, or Dr. J. W. Hamer, be the channel for their distribution.—*N. Y. Med. Journal.*

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BALTIMORE, JULY 20, 1889.

Editorial.

CONSIDERATIONS CONCERNING SOME EXTERNAL SOURCES OF INFECTION IN THEIR BEARING ON PREVENTIVE MEDICINE.—From a scientific standpoint, it is very satisfactory to see facts long known receive a proper explanation. At one time almost all the varied modes of infections as exemplified in the different diseases were roughly guessed at, but no one could offer absolute proof until bacteriology became a developed science and cleared up many of the dark points. What we know of this, which we may call the practical side of bacteriology, has been gathered together and laid down in a masterly, yet simple and natural, style by Dr. Welch. It must be a source of gratification to even the most obtuse to see cause and effect so clearly explained and feel that the removal of this infectious cause will prevent the dangerous result. This part of medicine, prophylaxis or preventive medicine, needs to be more studied. It is here that we have the root of the matter.

The principal sources of infection are by contact, air, ground, food and drink. The air may be a very dangerous channel, but as yet investigators have only succeeded in finding there the pus organisms and the tubercle bacillus, and it is very likely that the malarial germ can be carried by the air. Our two principal indications for the prevention of the spread of disease by the air is to guard against the dessication of substances containing infectious agents, and which, when moist and untouched, may be harmless; and also by free ventilation we can prevent disease by diluting the germs and introducing fresh air.

The ground is a much more dangerous source of infection. Many organisms thrive in the ground, either in virgin soil, or in the soil around cities, etc., or in the soil contaminated with filth. The means of prevention are to disinfect or destroy infectious substances and keep them from the ground. If they do fall to the ground, let it be rendered unsuitable for the reception of such matter by good drainage. Sewers should take the place of cess-pools, and streets should be frequently sprinkled and cleansed to prevent the infection from the ground and dust.

The dangers from water have been variously estimated. It is a fact that cholera and typhoid bacilli can live in water for no short time within certain limits of temperature, and even the old idea that water when freezing rejected all impurities and was free from bacteria on account of its temperature has been proven false by the work of Prudden. If the water be boiled or properly filtered (if such a thing be possible in this country), it is practically safe.

The investigations as to the danger of meat and milk seem to show that the favorite cow is by no means a safe animal. The great danger to man from cattle is in some form of tuberculous trouble. The

government has done much to exterminate pleuro-pneumonia of cattle and hog cholera, but tuberculosis of meat and milk is a constant source of danger. The milk may be boiled or the milk from various cows mixed, but to keep tuberculous meat from the market would require the services of well-trained veterinarians to inspect all meat.

In many of these preventive measures which Dr. Welch has so clearly shown we have much to learn from the European governments. What future work in bacteriology may yield in this country in the next five years is not easy to foretell.

Obituary.

OSCAR J. COSKERY, M. D.

Dr. Oscar J. Coskery, the well-known professor of surgery in the College of Physicians and Surgeons, died in this city of general tuberculosis, on July 5. Dr. Coskery had suffered for several years with a throat affection, which on numerous occasions had been attended with slight attacks of hemorrhage. Occasionally the cough and hoarseness accompanying the trouble obliged him to suspend his lectures for a time, but until recently his friends had little apprehension that he would succumb so early to the disease which many suspected to be present in his system, but which few believed had made such serious inroads upon his health.

Dr. Coskery was born in this city on March 23, 1843, and was consequently 46 years of age at the time of his death. His father was a well-known practitioner of medicine, and among his relatives were a prominent ecclesiastic and a leading member of one of the Sisterhoods of the Roman Catholic Church. His medical education was obtained in the University of Maryland, from which school he graduated in 1865. He entered the army as medical cadet before his graduation and rendered efficient service in the hospitals at Fort Monroe and Hampton, Virginia.

Soon after Dr. Coskery had established himself in practice in this city the St. Joseph's Hospital was founded in East Baltimore. From its humble beginning Dr. Coskery was the medical officer of the institution, and to his constant care and solicitude much of the success of that hospital is due. It seemed appropriate that he should end his days in the institution to whose success he had devoted so large a share of his professional life. Among the mourners at his grave there were none more sincere than the gentle Sisters of St. Francis, whose duties as nurses in the hospital brought them into daily relations with him throughout nearly a quarter of a century.

In 1874, Dr. Coskery was elected professor of surgery in the College of Physicians and Surgeons, and in this position attained a well-deserved eminence as a teacher. His lectures were clear, systematic, plain expositions of the science and art of surgery. His accurate knowledge of anatomy, his wide surgical reading, his tenacious memory and his simple, every-day language rendered him a model teacher.

As a practical surgeon, Dr. Coskery must be ranked among the strictest conservatives. Thoroughly imbued with the principles of the English school, which had impressed him strongly during a visit to London, and to the clinics of Sir William Ferguson and Mr. Erichsen, he believed in restricting the use of the knife to cases in which it was absolutely necessary. This ultra-conservatism was sometimes ascribed to timidity, but without doubt unjustly. The safety of the patient was always his first consideration. Under a somewhat brusque exterior, Dr. Coskery hid a warm heart. Those only who knew him intimately could appreciate the kindliness of his nature, and the inflexible devotion to duty that characterized his daily life.

In his domestic relations, Dr. Coskery's life was happy and his conduct exemplary. He was a devoted husband and kind father. His widow and children have indeed cause to mourn their loss.

Dr. Coskery was a consistent member

of the Roman Catholic Church, observing not only the external forms of worship in that communion, but giving daily evidence of his firm belief in the tenets that he professed. Yet he did not obtrude his beliefs or views on others. He simply impressed one by his earnestness and practical devotion.

He died as he had lived, calmly, unobtrusively, with quiet dignity,—

"Sustained and soothed
By an unfaltering trust * * *
Like one who wraps the drapery of his couch
Around him, and lies down to pleasant dreams."

R.

JOSEPH LLOYD MARTIN, M. D.

Dr. Joseph Lloyd Martin, one of the oldest and most prominent homœopathic physicians in this city and State, died at his residence, 24 E. Mt. Vernon Place, June 29th. During the winter of '88 the doctor contracted a severe pneumonia, from which he never entirely recovered, but from time to time continued his professional duties as well as his enfeebled condition would allow. During the month of March last he was obliged to abandon all work of this kind, and after a lingering and painful illness, which he bore with unusual fortitude, he passed away. The doctor was born in Monmouth County, N. J., May 20th, 1820; was the son of Dr. Isaac Martin, a physician well known in the section in which he lived. Although born in New Jersey, he grew to manhood in New York City, where he was educated, His medical studies were made at the Medical Department of the University of New York, where he graduated with high honors.

Subsequently embracing homœopathy, he practiced it conscientiously until his death. The doctor was married twice; to Mrs. Lerano Metcalf, who died about twenty years ago, leaving one child, who married H. C. Longnecker, Esq., of Towsontown; to Mrs. Eudora Vick, daughter of the late Capt. Asa Higgins. The doctor's professional career was a brilliant success. Among his patients were numbered many of the most intelligent and influential of our citizens, by whom he was greatly loved and respected. He was upon the most agreeable relations with all his professional brothers. Kind and considerate to the younger members, he attached them to him by the strongest ties, while with the more experienced his opinions always commanded the highest regard. Although a devoted adherent to his school of practice, he was not without warm friends among those from whom he differed medically. Their kind expressions of sympathy will always be an agreeable recollection to his friends and family. He was a senior member of the American Institute of Homœopathy, and for the last three years President of the State Hom. Medical Society.

The doctor was distinguished for the elegance of his manners, his manly dignity and rare amiability. In his death Baltimore has lost an excellent citizen, his patients a skillful and sympathetic physician, and homœopathy one of its staunchest supporters.

Miscellany.

Sutures and Ligatures in Abdominal Section.—Authorities are much divided as to the best material for sutures applied to the abdominal walls, and to intraperitoneal structures in abdominal section. The subject is most important in regard to the Sänger-Leopold Cæsarean section, where a very large number of sutures are applied to the uterine wound, and cut short, the uterus being replaced in the abdominal cavity. Dr Thomson, of Dorpat, has published in the *Centralblatt für Gynäkologie*, June 15th, a series of experiments intended to throw more light on the suture question. These experiments were similar to Spiegelberg and Waldeyer's, carried out many years ago, to ascertain the fate of sutures applied to the cornu

of the uterus in bitches, when the relative merits of the intra- and extra-peritoneal treatment of the ovarian pedicle were undecided. Dr. Thomson rejected silver as an unabsorbable material, and used for his experiments carbolized catgut, chromic gut, and silkworm gut. All these suture materials were carefully sterilized, and, as much as possible, of the same thickness. As the experiments chiefly bore upon the use of sutures in Cæsarean section, Dr. Thomson chose for experiment rabbits, cats, and bitches that had just given birth to young. An incision, a few centimeters in length, was made in the right and also the left uterine cornu, and united again by suture, a different material being employed on opposite sides in each case. The omentum and the abdominal wound were also sutured, in order to test the possibly different fate of sutures according as they were embedded in those structures or in the uterus. It was found that there was little or no difference. At different intervals of time the subjects were killed and the sutures inspected. Carbolized gut was found to undergo complete absorption in seventeen days, little but the knots remaining at the end of ten days. Chromic gut remained quite unabsorbed at the end of seventeen, fifty, and even sixty-four days, the portions projecting freely into the peritoneal cavity being more or less covered with membrane. At the end of fourteen days the silk, threads were found to be loosened, but intact; in fifty days partial absorption had taken place; in sixty-four days only a few small traces of the silk could be detected. Silkworm gut underwent no change; at the end of sixty-four days it remained intact, its sharp ends projecting into the peritoneum. From the above experiments Dr. Thomson concludes that, for Cæsarean section at least, silk is the best and safest material for suture, since it can be thoroughly sterilized, and undergoes sure but not rapid absorption. Chromic gut, silkworm gut, and silver are bad materials, being unabsorbable. Carbolized catgut is unsafe, as it is speedily absorbed.—*Brit. Med. Journal.*

A Remarkable Epidemic of Pneumonia.—In the *Maritime Medical News* for May there is an account of an epidemic of pneumonia in Prince Edward Island. During the months of February and March no less than five hundred and forty-six cases occurred in the practice of twenty-six practitioners, and at the date of the report the disease was still very prevalent. As there are over fifty practitioners in the island, it is computed that the total number of cases is fully upward of one thousand. As the population of the island does not exceed one hundred and fifty thousand, the number attacked is relatively very great. It appears that in the majority of cases the pneumonia was attended by acute bronchial catarrh. The catarrhal complications, which in some cases also involved the larynx and middle ear, were more frequent in children and the aged. In the five hundred and forty-six cases reported there were only forty deaths, a decidedly low mortality.—*Med. Record.*

The High Operation For Stone in Tiflis.—Dr. Rosenbaum gives in the *Meditsinski Sbornik* an analysis of thirty-six cases of stone operated on in the Michael Hospital in Tiflis. The ages of the patients varied from two to forty years, and the weights of the stones from 0.3 gramme to 80 grammes. The number of fatal cases was seven, the stones in these cases weighing from 10 to 35 grammes. What appeared to exercise far more influence on the result than the mere size of the stone was the general nutrition of the patients and the existence of vesical catarrh. Thus five out of the seven patients who succumbed are described as being badly nourished, exceedingly weak and suffering from a great amount of vesical catarrh. Only one death occurred in a really well-nourished patient, and he had vesical catarrh, the actual cause of the fatal result being an attack of peritonitis.—*Lancet.*

Typhoid fever is said to be very prevalent in the country around Chambersburg, Pa.

Medical Items.

Dr. Milton N. Taylor was married last Tuesday.

A German Anthropological Congress will be held in Vienna, August 5th to 10th.

In France the heirs of the late M. Chevreul have presented his valuable scientific library, numbering 10,000 volumes, to the Paris Museum of Natural History.

Dr. George J. Preston sails for Europe to spend a short time in Paris and London, in which latter city he will be married and will return to Baltimore with his wife.

Electrical experts are still uncertain as to the actual effects of strong currents on human beings, and meanwhile the New York criminal condemned to die by electricity is living in a state of uncertainty.

A man living in St. Paul, Minn., accidently received a severe shock of electricity which knocked him senseless for forty-eight hours. He has recovered, and says that the sensation on receiving the current was not painful.

A recent decision of the Surrogate Court of New York, has been made to the effect that, as a matter of law, the indulgence in the opium-habit, even though to excess, cannot be considered sufficient to establish want of testamentary capacity,

Despite the extraordinary heat of May, the greatest that has been observed here since 1719, the death rate of Berlin in that month was only between 20.7 and 23. In the first week of June, however, it rose suddenly to 38.3, 58.8 per cent, being children.

To the late Dr. Theodore Turnbull, of Jefferson county, Florida, is due the discovery of the importance of large doses of quinine in pneumonia. Dr. Turnbull was the grandfather of Dr. Theodore Turnbull, of Monticello, at present one of the leading physicians of Florida.

According to the *Business Woman's Journal* the present style of the Directoire suit is probably the most hygienic dress that has ever been worn by a woman. The absence of full drapery and the plain skirts prevent it from encumbering the limbs, and relieve it from the unnecessary weight which has been so serious an objection to the old styles.

The Berlin Society of Domestic Hygiene, of which the Empress Friedrich is patroness, held its tenth annual meeting on June 17th, under the presidency of Dr. von Bunsen. The report showed that the committee for sending children to the country had extended this inestimable benefit to 1650 children during the past year. It hopes to be able to send 200 more this year.

The Medical Society of the State of West Virginia held its twenty-second annual meeting this week, at White Sulphur Springs, W. Va. A number of Baltimore physicians attended the meeting and submitted papers on various branches of the profession, Among those were Drs. Geo. H. Rohé, J. W. Chambers, W. W. White, J. J. Chisolm, Wiltshire, and others.

The law in New York that physicians are debarred from holding the office of President of the Health Board has always been a just cause of complaint on the part of physicians in that city, and when recently Mayor Grant saw fit to appoint a stockbroker with no very honest record, (like most politicians), the Academy of Medicine protested and issued the customary resolutions, which will, unfortunately, probably have the usual result.

The Faculty of the College of Physicians and Surgeons held a meeting last week to fill the vacancies created by the deaths of Professors John S. Lynch and Oscar J. Coskery and the the retirement of Professor A. B. Arnold, who has removed to San Francisco. Prof. Thos. S. Latimer was transferred to the chair of principles and practice of medicine and clinical medicine; Prof. Chas. F. Bevan to the chair of principles and practice of surgery and clinical surgery; Prof. J. W. Chambers to the chair of operative and clinical surgery, and Prof. George H. Rohé to the chair of obstetrics and hygiene. Prof. Thos. Opie will continue as professor of diseases of women and dean of the faculty. To fill vacancies created by these transfers new professors were elected as follows: Prof. Henry Sewall, of the University of Michigan, to the professorship of physiology; Dr. George J. Preston to the professorship of anatomy, with the diseases of the nervous system as a clinical branch of instruction. Dr. N. G. Keirle was elected as lecturer on legal medicine, in addition to his demonstrations in pathology; Dr. George Thomas as lecturer on diseases of the throat and chest; Dr. G. A. Liebig, Jr., of Johns Hopkins University, lecturer on medical electricity, and Dr. J. H. Branham, demonstrator of anatomy. Drs. L. F. Ankrim, Frank C. Bressler and F. G. Moyer were appointed assistant demonstrators, and Dr. R. G. Davis, prosector of anatomy. Prof. Sewall, who comes here from the University of Michigan, is an old Baltimorean, and was for several years demonstrator of biology in Johns Hopkins University All the other appointees are residents of this city. As an evidence of esteem on the part of his colleagues, Prof. Arnold was elected emeritus professor of clinical medicine on his retirement.

Original Articles

INSANITY AND ALLIED AFFECTIONS.

BY ALEXANDER L. HODGDON, OF BALTIMORE.

I. PROPHYLAXIS.

The preventive treatment of insanity in general and individual insanities falls more frequently into the hands of the general practitioner than the specialist in insanity, and this guarding against the occurrence of attacks in individuals who have a family history of insanity, and the prevention of recurrence of attacks in those who have had one or more paroxysms, is a matter of great importance. An ounce of prevention is worth a pound of cure, is a homely and old saying, but an excellent one, and while we have more or less cases of insanity to treat, and happily cure a number of them, yet if those people were aware of the laws of health, many of them, would be saved the discomforts arising from an attack of acute insanity, which, in many instances, would run into the chronic form of mental trouble. It is particularly necessary that persons with a hereditary predisposition to insanity, who have passed through one attack of mental disease and been cured, should be instructed in hygienic matters, so that they may know what will probably precipitate another attack. There are many things in the views of many alienists which are direct causes of insanity.

Education is probably quite a factor in in the prevention of insanity, as Dr. Jas. Strong, Superintendent Asylum for the Insane, Cleveland, O., says: *"It will doubtless be regarded by some as a startling statement when it is declared that ignorance and insanity walk hand-in-hand. Every superintendent of an asylum for the insane, who has had a large experience and an ample opportunity for observation, will bear testimony to the fact that a vast preponderance of the patients who have been under his care came from the ignorant and defective classes. Says Dr. H. Tuke: 'It may safely be said that there is a predisposition to insanity with those who possess a decidedly limited mental calibre. I do not mean anything like imbecility, but a mind of narrow delicate structure and narrow range of power. It is a frail bark, easily shattered, infirm of purpose, led this way and that by the currents of life, and quite unfitted to contend with the storms of the world. Such minds are, to a great extent, the offspring of civilization, for had they been born among savages they would not have survived to maturity. They gravitate towards a retreat. This constitution of the mind must be distinguished from an allied, but different, organization, which is marked by native stupidity, and constitutes an infirm type of humanity largely met with in the lower classes, and especially the population from which the great county asylums of England are fed. On admission 'No Good' is plainly inscribed on their foreheads; and their physical and mental antecedents convince the physician that recovery is doubtful, or, if it should occur, that a relapse will almost certainly follow.' Comparatively well-educated persons become insane. When insanity occurs among the educated the causation can be found as a rule in the broad field of excess. When it occurs among the uneducated it can be found, as a rule, in the still broader field which embraces the weaknesses which spring from ignorance. What about the hereditary or inborn tendencies? It is one of the most important missions of education to change the currents of inborn tendencies, and through its moulding and modifying agencies, so to shape and direct the life that it will grow away from them. 'Appropriate exercise of an organ aids its development and increases its power. Appropriate locomotion strengthens the legs," so does digestion the stomach, and vision the eye. The normal performance of a function strengthens and develops the organ which performs it. The brain is no exception to this law, but is an admirable illustration of it. Brain exercise, that is, cerebration, strengthens and develops the brain.'" *Sir James Cox, Commissioner of Lunacy for Scotland, in concluding an article on "Why

*American Journal of Insanity. 1886.

*Medical and Surgical Reporter, 1873.

Insanity Increases," says: "My doctrine then is, gentlemen, that insanity, so far from being a disease of civilization is a disease of ignorance, and that the only way in which its extension may be checked is by imparting to every man a knowledge of the structure of his own body, and of the relations in which he stands to the moral and physical world around him. Lack of food is probably an exciting cause of insanity in many cases. *In England and Wales there were on the 1st of January 54,713 persons of unsound mind under the cognizance of the Lunacy Commissioners. Of these 48,325 were of the pauper class and commissioners report that they are satisfied that in a great majority of cases impaired nutrition is a cause of the malady. Bodily weakness impairs mental health. Of course upon bodies and minds thus reduced griefs and perplexities act with most damaging influence. It requires a strong mind to resist difficulty, and the mind sympathizes with the body."

†The alarming and much talked-of increase of insanity in this country is ascribed by common consent to the restless industry, enterprise and push of the American. From 1870 to 1876 Dr. Evarts had admitted 1204 men, supposed to be insane, to the hospital. No distinction was made excepting to chronicity and idiocy, which precluded admission. Of the 1204 but 17 had received even a nominal academic education, and only 25 were properly professional men, 12 being lawyers, 9 physicians and 4 clergymen. Of the remainder who lived by their wits there were 1 actor, 1 author, 1 editor, 1 musician, 3 insurance agents and 1 gambler; making a total of 38, out of 1204, who might be said to live by brain work. Of the 12 lawyers, only 3 were of more than ordinary capability or reputation in the profession, and one of these had reached senility, the other two had been intemperate in the use of alcohol and tobacco. Of those classified as physicians not one had been a student or thinker. Inherited defects of organism, night riding and exposure, whiskey, opium, neglect of personal hygiene, would figure conspicuously in their clinical history. Of the four preachers one was a "crank," one epileptic and the other two were half-starved and otherwise devitalized victims of the untoward circumstances of their birth. *Recollections of more than 4,000 persons that have come under my observation within ten years of continuous service as superintendent of a public hospital for the insane, aided by a review of the statistics, do not change the conclusions to be drawn from these selected examples; nor do other observations, more fully and studiously made, of the inmates of a private asylum for the insane, extending over a period of six years; though a much larger proportion of such inmates are persons of more than the ordinary intelligence and acquirements of the general population of public hospitals for the insane. The same general features of causation are seen through all disguises, viz.: An inherited potentiality, developed by a variety of mixed influences, emanating chiefly from conditions of deprivation or excess. I conclude, therefore, that while overwork, in the general acceptation of the term, is a prominent factor in the causation of diseases, some of which are manifested by mental disorders, overwork in the performance of mental functions is not a frequent or sole cause of such diseases.

†In an article by Dr. John P. Gray, Superintendent of the State Lunatic Asylum, Ithaca, N. Y., he speaks of maternity in its relation to the production of insanity. He says: "There is one important subject connected with causation which, perhaps, directly or indirectly produces more insanity than any other insanity connected with maternity, and with the over-toil, the loss of sleep, the neglect and defective nourishment after childbirth. In all the range of human affairs there is no neglect, no wrong, no cruelty that compares with the neglect and ignorance associated with motherhood. A woman about to

*Medical and Surgical Reporter, July, 1870.
†Journal of Amer. Med. Association, 1885.

*Dr. Orpheus Evarts' paper, Kentucky State Medical Society.
†American Journal Insanity, 1885.

become a mother stands in the most sacred relation human life presents. Neglect is so common that it passes current. It may be said to be expected. The facts of experience show that this neglect and ignorance constitutes a direct cause of insanity in a large number of cases, and in a vast many more an indirect cause, by first breaking down the general health. In these ways motherhood is made wrongfully to become a prolific cause of insanity, of mania, of melancholia, of suicide; yes, of homicide. What a wrong! A wrong that cries to heaven day by day, but seemingly in vain. I do not feel it necessary to expatiate on this subject, as the facts are too patent. Is there a remedy for the better protection of maternity? I have long had in my mind the idea of an association for this work—I will not say charity. It is no more a charity than the organization of a church is a charity. One is an organized association for the instruction and aid of people in their religious duties; the other would be simply an organized association for instruction and aid in maternal duties. In two instances I have endeavored to enlist men with large means who were contemplating benevolent disposition of their fortunes, but I did not succeed, though I have always believed that I should have succeeded in one case if death had not come suddenly and unexpectedly. In my conversation with this gentleman, one of his questions I remember was: 'Would it not require a great many nurses?' 'No, I would simply suggest the employment of suitable women of the same social class to do the housework, and be paid for it by an association. Such an association under the notice of a physician, in all cases to furnish such aid. It would not be a public but a private and unpretentious mode of work. If women knew they would have all needed care, not in a hospital, with its necessary publicity and separation from home, but in their own homes and among their families, and without the notoriety of their condition, what a burden would be lifted, what health saved, and what insanity prevented."

In the opinion of the writer of this article marriage is one of the strongest prophylactic measures that can be adopted, particularly in cases of predisposition to hystero-mania. I am fully aware that my views on this subject will probably be criticized, particularly on the ground that the parent with the hereditary predisposition to insanity may impart to his or her offspring a similar hereditary taint. Marriage is the proper state of mankind, were it not so male and female would be alike in all respects. Were digestion absent in the human body there would be no alimentary canal. *Savage says: "In connection with sex one must consider marriage. Among the insane we find among men most single men, but among women more married than single women." But we must take into consideration the many conditions of pregnancy, labor and lactation to which married women may be subjected to, and the lack of knowledge prevalent amongst them as to the hygiene of pregnancy and childbirth. The individuals who are opposed to the marriage of those who have a predisposition to insanity will probably consider as their strongest argument against it, the matter of the transmission of a similar predisposition to offspring. Methinks if such a stand were taken in reference to the marriage of all individuals who have a hereditary predisposition to any disease, insanity included, there would be very few marriages, and the population of the whole world in a couple of centuries might be in the neighborhood of one hundred thousand people; and is it to be supposed that out of that number there would be none to transmit a hereditary tendency to disease? Look at the vast number who annually succumb to phthisis, and phthisis is a disease where a hereditary predisposition may be transmitted. As able an alienist as Dr. John P. Gray writes in that scholarly article of his on heredity:† "Heredity has its proper place in natural science, and is but the expression of the primeval law of species; but we cannot admit that it

*Insanity and Allied Neuroses. By Geo. H. Savage, 1884.

†American Journal of Insanity, 1884.

is responsible for such a thing as a positive disease of the brain, which all admit is the only basis of insanity, the mental disturbances being but symptons of such disease. No person has ever been born insane. No person ever became insane simply because his father or mother, or both, or his grandparents, were insane. No person ever became insane simply because of any impression arising from parentage upon either his physical or mental constitution. Every person who becomes insane, whether he has had insane parentage or not, becomes so by reason of some physical causes operating to change the physiological state of the brain. Whatever his parentage may have been, insanity in him can only be developed by the same causes which produce it in persons who have no insane parentage. Parentage cannot impress upon offspring even a tendency or a 'predisposition to insanity.' The most it can do is to transmit a physical structure or organization, which will be more liable to the operation of ordinary causes that produce disease in any form in people generally, insanity included."

Many things tend to precipitate an attack of insanity, and I think there are very few, if any, more potent to bring about such a result than a diminution of the natural amount of sleep usually taken in twenty-four hours, and I have seen insanity produced directly as a result of loss of sleep. Disappointment in love very frequently, I believe, will cause insanity, and I have treated a case which was due directly to this cause. There are many diseases which may have complicating insanities, phthisis, etc., and of course if the onset of the disease is prevented the insanity will not be produced.

In conclusion, I would say that I believe the popular idea in reference to heredity has a great deal to do with the production of insanity, i. e., that a person with a hereditary predisposition to insanity is almost sure to live and die a maniac, and with this hanging over them I believe many are driven insane who otherwise would have lived a long life of sanity.

FOREIGN BODIES IN THE BLADDER OF THE FEMALE.*

BY J. T. KING, M. D., OF BALTIMORE.

A few weeks since I was called for the first time to see Mrs. B——, aet. 30, recently removed to our city, mother of two healthy children. From her I obtained the following history: "About ten years since, prior to my marriage, my trouble began with pain on the right side of my abdomen, indicating with her finger a point about the juncture of the right inguinal with the hypogastrium. I placed my case in the hands of a local homœopathic physician and later visited Baltimore to consult other doctors of the same persuasion. No two thought alike of my case.

"A few months after marriage, when I became pregnant, the pains increased much, and remained severe until the birth of my first child, when they diminished.

"About six months since, after the birth of my second child, something like an abscess broke and discharged copiously an offensive pus whenever I passed water, and at no other time. This discharge, though less, still continues. At the present time I suffer, she said, with a constant desire to urinate, void small quantities at each time, with pain and straining."

By bi-manual examination I could find nothing abnormal. I gave her two grains of benzoic acid every three hours, and ordered one-quarter grain extract belladonna in suppositories four times a day, with the promise that I would return the next day. At my second visit my patient produced the specimen I now present to you, with the statement that she had passed it in a violent effort to urinate. You see we have hair incrusted with phosphate of lime. The nidus, under the microscope, presents the usual characteristics of human hair, though the medulla contains a darker pigment than any with which I have compared it. I think we will all agree that this is a urinary calculus, with hair as a nidus, so the only question we have to consider

*Read before the Baltimore Medical Association, May 27, 1889.

is the primary origin of it. Was a tuft of hair introduced per urethram into the bladder about which this incrustation has formed, or is it the remains of a dermoid cyst, in which we so often find hair, teeth, bone, skin, nerve fibre, etc., which has found its way by inflammation, adhesion and abscess into the bladder and there becomes a nucleus for a urinary calculus? At first blush the former hypothesis seems the more probable, for we know how frequently females introduce all sorts of articles such as crochet needles, bodkins, hair pins, etc., per urethram there to form the foundation for a calculus.

I admit that the fearful vice of self-pollution exists, and is indeed a great social evil, and that we physicians should lay aside all morbid sentimentalism which might prevent a free discussion of the ailments this vice gives rise to, and fearlessly meet it. *The Lancet* of 1870 suggests, in a series of leading articles, that all medical and surgical authorities should fearlessly discuss this abominable vice and its attending evils with the same freedom they would any kindred nervous affections. So in expressing the view I do, I do not believe this hair was introduced by my patient, I know some will think I have been imposed upon by her statements, indeed a number of my medical friends have already so expressed themselves. It is interesting to read of the credulity of such men as Velpeau with a faith in human nature irreconcilable with his experience, giving credit to the statement that a patient discharged through her urinary passage a ball which she had swallowed, or that points of spindle, ears of wheat, etc., had reached there through the migratory process. Some of our fathers in medicine supposed that needles and the like found their way to the bladder through the veins of the stomach to the liver, thence to the heart, from this viscus to the kidneys, and thus to the bladder, or that needles with a large head might penetrate the mucous lining of the stomach or bowel and thus reach the bladder.

If you will pardon this digression I will state my reasons for entertaining the views I do upon this case. In the first place I obtained the history from my patient which pointed strongly, almost conclusively to a dermoid prior to the discharge of the calculus, she could not be charged, therefore, with having manufactured the statement to cover her vice. Second, she was not of an hysterical nature, on the contrary, she impressed me with the idea that she was a woman of unusually strong mind. Third, hair could not readily be introduced into the bladder without the aid of another body. Fourth, while I could not find cyst walls, probably because the tumor was empty, yet the discharge with the urine continues slightly. Fifth, other cases are on record to support this view. I have found two cases in medical literature, one in which teeth formed the nucleus, and another, by Bryant, which is very similar to the one I have given you.

A synopsis of Bryant's case would be instructive. He says: "On the 12th of July, 1883, examined my patient, having severe cystitis, for urethral obstruction, removed a bundle the size of a penholder of fine hairs covered with phosphates from the urethra, which bundle is now in the Museum of the Royal College of Surgeons. With the removal of this all constitutional symptoms disappeared for the time." Bryant says, "I believe this tumor to have originated from a dermoid cyst which had been implanted in the walls of the bladder during the patient's fœtal life, and that it began to undergo changes in its interior a few days before it came into my hands."

Dr. Goodhart, commenting on this very case of Bryant's, says: "It has been suggested that it is some congenital growth like a hairy mole upon the skin, but taking into account the history which conclusively establishes that the patient was perfectly free from any vesical trouble of any kind until recent date, and knowing that hair in the bladder always provokes a deposit of phosphates and causes extreme worry and cystitis, it is inconceivable that this growth has been in the bladder any time. It must, therefore, have come from the outside, I take it, therefore, as probable that at time some inflammation occurred around

this growth outside the bladder, that ulceration occurred in the bladder and the polypus escaped into the cavity, and when once there it immediately provoked, as such a growth might be expected to do, the intense cystitis that then happened. Whether the dermoid cyst sprang from the ovary, as is naturally most probable, or came as is not unknown from some other part of the pelvis, there is no evidence in the specimen to determine."

Dermoid cysts have been found in the lungs, thyroid glands, kidneys, etc. They have been found before puberty or even before birth.

About three-fifths of dermoid cysts are found in females, two-fifths in the males.

The view of the origin of these cysts now generally received is that they are congenital and due to a displacement of the external layer of the blastoderm.

A CASE OF SCARLATINAL NEPHRITIS AND HYDROPS SCARLATINOSUS SINE SCARLATINA.

BY ROBERT HOFFMANN, M. D., OF BALTIMORE.

It is a well-known fact that in the course of scarlet fever epidemics a larger or smaller number of cases are seen in which in the course of the disease an inflammation of the kidneys, a nephritis, sets in with the appearance of albumen in the urine. Stevenson Thomson makes a distinction between an initial albuminuria occurring early and one occurring later. Genuine scarlatinal nephritis generally appears in the third week of the disease. It is a fact that children under two years of age, who are ill with scarlet fever, are comparatively seldom affected with a disease of the kidneys, and most diseases usually set in from the seventh to the ninth day after the appearance of the eruption. According to our present ideas it is supposed that in every case of scarlatinal nephritis a collection of bacteria in the kidneys is the exciting cause by plugging the vessels with micro-organisms or extravasating into the tissue and thus causing inflammation, hæmorrhage and suppuration. As to the organism ot scarlet fever, its nature and origin, we are still in the dark and investigations on this point are not yet concluded. In scarlatina it is a question of an infectious disease with an accompanying eruption, that is, of a skin disease. That there exist relations between the skin and kidneys there is no doubt, for long ago older authorities, who were not acquainted with the bacilli theory, called attention in the prophylaxis of nephritis to the fact that both during and after the stadium desquamationis the sick should be protected from cold and kept in bed. Augagneur (Néphrites aigues infectieuses dans la Lymphangite et l'ecthyma) reports three cases of skin disease, two of lymphangitis caused by neglected ulcers ot the foot and a relapsing ecthyma complicated with a diseased condition of the kidneys in the form of a transitory acute nephritis. He brings up these cases as examples of the infectious nature of the disease. The septic micro-organisms by being taken up by the skin cause a disease of the kidneys in their passage through them. Even a long time ago it was supposed that the skin desquamated in scarlet fever contained an especially large amount of the contagious principle of scarlet fever. In view of these opinions, Edington has conducted experiments to cultivate the germ of scarlet fever, by which he found cocci and bacilli, and among them he found a micro-organism, which he called the diplococcus scarlatinonis. This is in the shape of rods from 0.4 micron (micron$=\frac{1}{1000}$ mm.) thick and 1.2—1.4 micra long, which are usually united in chains. On the other hand a coccus was discovered like the streptococcus of Fehlleisen, and this coccus Klein, of London, cultivated from the blood of scarlet fever patients. Klein also announced that in cows an ulcerous affection sometimes occurred on the teats which was communicable to man and caused a disease which ran a course exactly like scarlet fever. Crookshank (*Semaine Médicale* 52, 1887.) considers this organism discovered by Klein as a simple coccus of

inflammation and denies its importance in the etiology of scarlatina.

From these brief statements it may be seen that the question as to the existence of a scarlet fever germ is still undecided. Still there is an inclination to believe that a specific organism exists and the theory of taking cold as a cause has little support. With reference to these investigations I relate the following case, which came under my observation:

A girl, 14 years old, who, during an epidemic of scarlet fever, felt perfectly well, suddenly and without apparent cause had her right cheek to swell up and later the left also. All this time she felt well, but went to bed to please her family. Two weeks later she came under my care, with the following history: A pale swelling of the face, especially of the cheeks and eyelids, which is especially noticeable in its breadth. The skin of the breast shows a puffiness. Pulse slow and full, somewhat dicrotic. The apex beat of the heart is in the nipple line in the sixth intercostal space and increased in force. At the apex beat and pulmonary arteries a systolic grating is heard. The heart dullness is increased. Auscultation showed an uncommonly short, rough murmur at the apex. The second pulmonary tone is stronger. There is no actual heart trouble found since the liver is not at all enlarged; also there is no actual blood disease (chlorosis), since in this condition the dropsy always begins in the lumbar region. The urine is scanty, cloudy, reddish, like meat juice, and contains sediment, albumen and a large amount of blood and high specific gravity. The microscopic examination shows epithelial casts and an increase of color less blood corpuscles in the blood in the urine. It is important to notice that in this case the swelling began first in the face, and that there was a scarlet fever epidemic at the time that the patient in entire health took on this dropsy. We have here a hydrops scarlatinosus sine scarlatina, for the form of the disease corresponds to a nephritis, which began primarily as a chronic disease. Just as in parotitis an orchitis may occur without swelling of the parotid gland in the same way a hydrops scarlatinosus sine scarlatina may occur. The dropsy appeared just as if the patient had had scarlet fever, exactly as a dropsy after scarlet fever. Dropsy in heart disease begins in the lower extremities, in renal troubles it generally appears first in the face. As above-mentioned, the connection between scarlatina and nephritis is based on the supposition that an occlusion of the renal vessels by micro-organisms occurs, that is in a certain sense, there is an antagonism between the skin and the kidneys. This theory does not hold in regard to the case mentioned, as there was no skin disease here. There is no doubt but that scarlatina can affect the kidneys just as it does the throat, in which case the individual conditions and causes must be taken into account. The same conditions which physiologically may cause albuminuria, can under pathological conditions cause nephritis. The patient mentioned recovered entirely with the use of warm baths at 40° C [104° F], diuretics and injection of pilocarpin.

613 Park avenue.

Syphilis Complicated with Scurvy. —Dr. Talysin, having under his care two cases of syphilis complicated with scurvy, and finding no mention in literature of the best treatment of the two diseases when occurring simultaneously, resolved, after a consultation with his colleagues, to treat the syphilis alone. The mercury given, though it soon produced a formidable degree of cachexia was continued for about a month, by which time the syphilitic affection had entirely disappeared. Only then was the scurvy treated. It was cured in about six weeks by the administration of quinine and acids combined with strengthening food. —*Lancet.*

Among the martyrs to medical science was Dr. Gautier, of France. He became infected by the germs of tuberculosis while making a powder from the discharges of tuberculous patients.

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BALTIMORE, JULY 27, 1889.

Editorial.

NITRO-GLYCERINE.

If the statements of Dr. Burroughs (*Lancet*, June 22, 1889,) are supported by further experience a very valuable drug will be added to the list of those now relied upon by the profession. He presents its claims as a substitute for alcohol in cases of emergency. The preparation used is a one-per-cent. solution, the dose being one drop. It may be given in water, when it is almost tasteless, or, in emergency, a drop may be placed upon the tongue. It causes, in small doses, increase in the fullness of the pulse and a slight increase in the number of its beats. In larger doses, flushing of the face, severe headache, singing in the ears, flashes before the eyes, and other symptoms of increased blood supply in the brain. Its effects are experienced a few minutes after the dose, and continue from twenty minutes to four hours. Its influence is counteracted by strychnia, ergot and belladonna given subcutaneously. The headache may be controlled by compression of the throbbing carotids.

Dr. Burroughs has used nitro-glycerine with benefit in a number of different conditions.

A patient with neuralgia of the heart (*Angina Pectoris*) was frequently relieved of pain and dyspnœa by it.

A young man who fainted during the dressing of his wounds was quickly restored by a drop upon the tongue.

Anæmic headache was quickly relieved by it.

One drop instantly cured pure spasmodic asthma in a workman, enabling him to resume his work at once.

A patient with typhoid fever became delirious and extremely prostrated on the twenty-fourth day. His temperature fell, his pulse became slow and remittent. He refused to take brandy. One-fourth of a drop of nitro-glycerine (1 per cent. solution) was given every fifteen minutes for two hours. The pulse became full and regular, the delirium subsided, and in twenty-four hours the mind was clear.

In a case of acute alcoholism, the patient was made worse by a single drop of nitro-glycerine solution.

In cases of opium narcosis and of uremic coma, with feeble pulse, great benefit followed its use.

In cases of apparent sudden death and of drowning, nitro-glycerine dropped on the tongue might start the heart again to beating and restore the patient to life.

Society Reports.

Baltimore Medical Association.

STATED MEETING HELD MAY 27, 1889.

Dr. George H. Rohé exhibited

A CASE OF TUBERCULOSIS OF THE SKIN—

—LUPUS EXUDENS—

in a boy, 16 years of age. who gave the history of having been struck on the left side of the face at the angle of the jaw ten years ago, the wound being the starting point from which the lupus has spread over the side of the face and nose now has destroyed the external ear to the external meatus, the ear being eaten off as cleanly as if dissected away by the surgeon's knife. The nose presents the characteristic appearance of the disease.

Tuberculosis of the skin is not always coincident with tuberculosis of the lung.

Contiguous parts,—the external meatus of the ear, the cervical glands and the external and conjunctival surface ot the eyelid, are all affected.

It might be confounded with the ulceration of inherited syphilis by one not familiar with both. There is no history or other indication of syphilis.

Though the external ear is ulcerated off there is no loss of hearing.

Within the last few years Unna, of Hamburg, has devised a new method of treatment, combining creosote and carbolic acid in the form of a plaster to be applied to the surface, from which he reports good results. Dr. Rohé said he may afterwards try this, but would first use the curette and thermo-cautery, followed by bi-chloride washing and iodoform dressing.

Dr. A. Atkinson read a paper on

A PARTIAL CLINICAL STUDY OF CREOSOTE.

(To be published later.)

Dr. J. T. Smith thinks it important to carry out experiments to test the certainty of effect and reliability in coagulating albumen. He will be glad to have something to take the place of heat and nitric acid or of Pavy's tablets.

Dr. George A. Rohé said heat will precipitate albumen, but he does not know what else. It may precipitate mucus, peptones, etc. He uses almost entirely the supra-position test with nitric acid, which is the important clinical test for albumen.

He expected Dr. Atkinson to make more reference to the use of creosote in phthisis. He has used it with increasing satisfaction. Some cases cannot take it. It does not always give good results, but it generally does good. In large doses, 2 to 3 drops, three times a day, it usually lowers the temperature, stops night sweats, improves the appetite and increases the strength. He has used it in a large number of cases at Bay View. He has no doubt, if used in the early stages, it will often result in a cure.

Dr. Atkinson said he had good results from it with a patient, but he did not care to report it, as he had used terraline with it. Patients usually object to it when the urine becomes dark.

Dr. C. H. Jones has not had such good results from it. Perhaps it is because he has used it in advanced stages only, giving from 1 to 2 drops in whiskey three times a day. He finds that it produces some gastro-intestinal disturbance. He has given it in hæmatemesis and summer complaint with good results.

Dr. E. G. Waters introduced its use in the Camden St. Hospital in 1862 as a cleansing and stimulating application to ulcerating and gangrenous wounds, using it in the proportion of one dram to two quarts of water. He thinks it remarkable that creosote produces a brownish, and carbolic acid a greenish, tint to the urine.

Dr. H. H. Biedler thinks it the finest thing in the world for a horse with bronchial affections of all kinds, and sees no reason why it should not act well on man.

Dr. J. T. King read a paper on

FOREIGN SUBSTANCES IN THE FEMALE BLADDER.

(See page 244.)

Dr. John W. Chambers thinks Dr. King's theory of its origin is correct. He can hardly think of a woman putting

hair into her urethra, as it would hardly produce the effect desired. She would more probably use something else.

He related the case of a boy from whom he removed a stone weighing 1½ drachms, whose nucleus was a match which the boy had introduced.

Dr. H. H. Biedler hardly thinks it a dermoid cyst arising in the ovary and ulcerating its way into the bladder, as it could hardly do this without setting up a peritonitis or a cellulitis. He thinks it is probably an accumulation of hair introduced into the bladder from without which has been covered with the deposit.

Dr. Chambers thinks the woman evidently had a localized peritonitis, as shown by the history of the case. Dermoid cysts of the ovary may empty themselves in various ways, as through vagina, rectum, bladder, etc.

Dr. J. D. Kremien was not sure, from appearances, whether the specimen is hair or oakum.

Dr. King said microscopic examination shows it to be hair.

Dr. J. W. Chambers related a case of traumatic peritonitis.

HENRY B GWYNN, M. D.,
Rec. and Rep. Secretary,
1837 W. Lexington St.

Correspondence.

Annual Meeting of the West Virginia State Medical Society.

WHITE SULPHUR SPRINGS, W. Va., July 19, 1889.

Editor Maryland Medical Journal:

Dear Sir—The twenty-second annual meeting of the West Virginia State Medical Society will be of increased interest to your readers this year because several Baltimore physicians were present and contributed papers. About 100 delegates were present from all parts of this State and some from adjoining States. The society was called to order at 8 P. M. on Wednesday by President L. D. Wilson, M. D., of Wheeling. Dr. D. Mayer, of Charleston, was elected secretary. The address of welcome was then delivered by Dr. Thomas R. Evans, of Charleston, chairman of the committee of arrangements. President Wilson then delivered his annual address, in which, among other good and practical points, he insisted very strongly upon the adoption of a method of examination by a State board for admission to practice. This board should be appointed in such a manner as to exclude all political or other influences. The next day after the transaction of some routine business and the report of Committee on State Medicine had been read, the secretary, Dr. D. Mayer, of Charleston, read the report of analysis of water from a new spring in Montgomery county, Va. The water is called "Bromo-Arsenic" water. Its virtues are due to the large quantity of arsenic it contains to the volume, being larger than that of any other spring in the world. The water also contains many other valuable medicinal agents, such as lithia, sulphate of magnesia, iron and sulphur.

Dr. S. V. Hoopman, of Baltimore, then delivered an address on the "Pathology of Fever," in which he recommended very highly the use of the salicylate of ammonium, and claimed great advantages from it over antifebrin, antipyrin, quinine, etc. The speaker called attention to the vast importance of a thorough knowledge of all fevers, but dwelt more especially on typhoid, yellow and malarial fevers. The paper was discussed at length by different members of the convention, and was well received.

Dr. J. N. Upshur, of Richmond, Va., then read a paper on "Reflex Bladder Troubles in the Female." This paper was discussed by Dr. Hunter McGuire, of Richmond. Dr. J. D. Mayer read a paper entitled "The Proper Hygienic Care of Young Females."

The next paper was by Dr. J. G. Wiltshire, of Baltimore, on "Some Observations on the Proper Treatment of Eye Affections in Young Children." The discussion went to show that three-fourths

of all the cases in our blind asylums were due to newly-born children being neglected at the very time that the eye troubles should be most carefully diagnosed and treated.

Dr. Thomas R. Evans, of Charleston, presented a paper on "Cancer of the Stomach." In this connection he spoke of the excessive use of tobacco, alcohol and improper food as the great factors in the production of cancer. Dr. J. A. White, of Richmond, Va., on "Obstruction of the Nasal Passages as Tending to Produce Throat and Bronchial Troubles." He also presented some new instruments for making proper examinations of, and application to, the throat. The last paper of the day was that of Dr. Dabney, of the University of Virginia, and the resident physician at the Grand Central Hotel. His subject was "Cardiac Neuralgia."

To-day, being the last day of the meeting, the society met at 2.30 P. M. and held but one session.

Dr. J. Edwin Michael, of Baltimore, presented a paper on "Two Laparotomies, with Comments."

Dr. W. W. Tompkins read a paper on "Hemiplegia" that was of interest, as he discussed the causation of apoplexy and kindred troubles. The presentation of papers at this point was suspended for want of time, and the society resumed its regular session. Dr. S. V. Hoopman and Dr. J. G. Wiltshire, of Baltimore, were elected honorary members.

The following officers were elected for the ensuing year: Dr. S. H. Austin, of Lewisburg, president. Vice-presidents—Dr. Thomas R. Evans, of Charleston; Dr. J. D. Myers, of Huntington; Dr. V. R. Moss, of Barboursville; Dr. D. Mayer, of Charleston. Secretary, Dr. J. T. Fullerton. Treasurer, Dr. John A. Campbell, of Wheeling.

Board of Censors—Drs. Macdonald, Enslow, Fravel, Hughart, Putney, Rupert and Wagner.

Committee of Arrangements—Dr. A. F. Stiefel, chairman, and the Wheeling members.

The society then adjourned, to meet next year at Wheeling, W. Va.

The society was entertained at night by a sumptuous banquet, tendered by the proprietor of the Grand Central.

At the conclusion of the meeting remarks were made by Drs. Michael, Upshur, Branham, Hoopman, Edwards and others expressing their appreciation of the courtesies that had been extended to them by the association.

The Baltimoreans present were Drs. S. V. Hoopman, J. Edwin Michael, J. H. Branham and others.

Drs. G. B. McCord, Hunter McGuire, John A. Graham, B. Edwards and J. N. Upshur represented the State of Virginia.

Miscellany.

THE NOTIFICATION OF PHTHISIS PULMONALIS AS A CONTAGIOUS DISEASE—The Health Department of this city is studying with much care the problem of the prevention of phthisis through destruction of its infecting agent, the bacillus. It is, in particular, directing its efforts to the more crowded portions of the city, where the danger of infection is greatest. The exact mode of attack upon the bacillus has not, we believe, been fully decided upon, although some preliminary steps have been taken. The most serious question which has arisen, we take it, is as to the advisability of classing tuberculosis with the contagious diseases that are now reported to the Health Department, and requiring that it be similarly reported. The advantages of this step would be that would educate both physician and public to the view that phthisis is infectious, and would impress upon both the fact of the necessity of using disinfection in connection with its treatment. On the other hand, it might needlessly alarm the public and perhaps add, unnecessarily, to the discomfort and suffering of the patients. We doubt very much, also, if themedical profession would co-operate heartily in notification,

except as regards hospital and dispensary patients. Despite some disadvantages, however, we believe that a trial at least of the notification plan might be made in promulgating and practically enforcing the view that pulmonary phthisis is a contagious disease, however most careful and explicit statements should be made as to what is meant by this contagiousness. It should be shown that the disease is not contagious in the popular sense at all, i. e., communicated by contact, or the breath, but only by the medium of the sputum; also, that unlike syphilis and other infectious diseases, it cannot be communicated under any ordinary conditions, except to those who are predisposed by various constitutional and depressing agencies to its development.—*N. Y. Med. Record.*

A Year of Acetanilide in Pediatric Practice, was the subject of a paper read by Dr. I. N. Love, of St. Louis, in the Section on Pediatrics. He arrived at the following conclusions: 1. Acetanilide, carefully guarded and properly used, is a safe and reliable remedy in the diseases of childhood. 2. Whether used for the antipyrectic, analgesic, or sedative effect, it is preferable to antipyrine, in that the result procured is of longer continuance and the depression is not so great. 3. The cyanosis which sometimes results from its liberal use is not uniform, and while it is not an agreeable feature, my experience corroborates that of other observers, to the effect that it soon passes off and is not accompanied by danger. 4. It is not desirable in reducing temperature, no difference what means are employed, to use them in excess to the extent of securing sudden and great reduction. Especially is it preferable in using acetanilide for antipyretic purposes, to give it in medium doses to the extent of keeping the temperature down to a reasonable point in the neighborhood of 100° F. It is better to give small doses and repeat them more frequently, rather than large ones at long intervals. 5. It is of great value as a controller of temperature in the various fevers, whether they be caused by the typhoid germ, malaria or exanthemata. 7. It serves also a specific in whooping-cough, not in aborting the disease, as it has a definite course to run, but in mitigating the discomforts and controlling the paroxysms of the same. 8. Acetanilide, while of great value, and surely safer than antipyrine, is no exception to the rule that obtains with all drugs. It should be handled carefully, administered judiciously, and under no circumstances should the public be educated to its use. 9. Medicines, the tools of the physician, should no more be left to the indiscriminate use of the lay public than the tools of the surgeon or soldier.—*Memphis Medical Monthly.*

Mercurial Salts as Diuretics.—It is more than a year since Jendrássik published an article on the diuretic action of large doses of calomel in cases of dropsy. The subject attracted great attention, especially on the Continent, but the mode of treatment has not been much in vogue in England. The reason for this lies in the fact that calomel has to be administered in such large doses as to produce stomatitis, which must be treated by astringent gargles, and to cause diarrhœa, rendering opium necessary. It is, perhaps, a question whether such severe effects do not counterbalance the diminution of the dropsy. It is not to be denied, however, that in some cases, especially of cardiac dropsy, in which calomel is well borne, the mode of treatment is decidedly beneficial. Jendrássik stated that calomel was a diuretic only in œdematous conditions; but Biegarski has found that, if continued for a sufficient length of time in the healthy subject, it produces in from two to ten days distinct diuresis. This last observer has also investigated the action in the same direction of subcutaneous injections of corrosive sublimate and inunction of blue ointment. Both these produced diuresis, the subcutaneous injections most powerfully, the inunctions least, whilst the internal administration of mercury might be considered as intermediate in power. Small doses had no diuretic action whatever; only medium and large doses increased the amount of urine. The action was most marked in dropsy due to car-

diac disease, and Biegarski asserts that the mode of treatment diminishes, and even cures, pathological changes in the kidney. Mercurial salts, indeed, seem to act as diuretics by stimulating the kidney substance during their excretion in the urine. Another observer, Stintzing, confirms the above conclusions, especially as regards cardiac dropsy, in which disease digitalis may be combined with calomel. In dropsy due to kidney disease and to portal obstruction mercurial salts are of very little use.—*Brit. Med. Journal.*

The Channel of Tuberculous Infection.—Another piece of work emanating from Dr. Koch's Hygienic Institute was an address by Dr. Cornet on the channel of tuberculous infection, which is referred to in the Berlin letter to the *London Medical Press* of June 12th.

The knowledge that infection in cases of pulmonary phthisis took place generally through particles of dried sputum reaching the lungs was important from a prophylactic point of view, as the speaker pointed out, and if we could determine the point of entry of the virus in glandular tubercle also, our aim would be more intelligent and precise. The speaker's attention was first directed to the cervical submaxillary and occipital regions. He showed some guinea pigs into whose conjunctival sacs some sputum containing tubercle bacilli had been placed. No injury of the sac took place. Notwithstanding this, the bacilli grew, penetrated the tissues, and set up swelling and hyperplasia of the conjunctiva. In all the animals caseation and softening subsequently took place in the neighboring glands. The side on which the inoculation took place showed the most extensive changes. In two other animals the nasal mucous membrane was painted by means of a pigeon's feather, with bacillary sputum in one case and a pure cultivation of tubercle bacilli in the other. The corresponding glands became tuberculous in both cases. In other cases the cavity of the mouth was inoculated with sputum or pure cultivation material, and all the corresponding glands became tuberculous. In another guinea pig infective material was introduced into the ear, and the auricular glands became subsequently caseous. In still another animal the skin over the nose was shaved clean and sputum rubbed in, when later on a serpiginous ulceration covered with a thick scab, reminding one of lupus, was observed; the cervical glands became much enlarged. Another animal was scratched on both cheeks with a finger-nail dipped into tuberculous sputum, and the ulceration, covered with scab, that followed, spread and became confluent. Another animal was rubbed, but without abrading the surface, with a wash leather that had been dipped into bacillary sputum; after some weeks it was killed, when the corresponding lymph-glands were found enlarged. Other animals again were infected from the vagina, penis, toes, etc. He concluded that tubercle bacilli could penetrate into the system without causing distinguishable injury at the point of entry. The nearest lying glands became tuberculous and illness developed resembling scrofula as it was often seen, and without doubt scrofula depended on a tuberculous infection from without. This was the less remarkable when we remembered how incautiously we treated phthisical sputum, and how frequently children made a way for the entrance of disease by putting every possible object within their reach, covered with tuberculous matter it might be, into their mouths, up their noses, or into their ears. —*Medical News.*

Bologna, following the initiative of Milan, opened on June 30th an Instituto Anti-rabbico, or institution for the treatment of rabies on the Pasteur method. The King, the Prime Minister and the various civic and scientific bodies, as well as the townsfolk of Bologna, contributed the requisite funds. Every considerable Italian city will soon, it is anticipated, be provided with an institution of the kind.

The Kentucky Senate has passed a bill providing for the appointment of women physicians as assistants in the insane asylums.

Creasote in Flatulent Dyspepsia.—As creasote is an antiseptic, it may be expected to diminish fermentation, and to this effect it is especially efficacious when associated with an alkaline salt. In the treatment of flatulent dyspepsia, the following formula has been recommended by Dr. Eloy in the *Gazette Hebdomadaire de Médicine et de Chirurgie*, May 31, 1889:

Pure creasote, gtt. x;
Bicarbonate of sodium, gr. cxx;
Pulverized gum arabic, q.s.
Water, ℥ v.

A coffeespoonful to be given one hour after each meal.

If gastric atony and insufficient gastric secretion are supposed to be the cause of the affection, the following prescription may be used:

Pepsin, gr. lx;
Creasote, gtt. x;
Subcarbonate of bismuth, gr. lx.

This is to be divided into thirty packages, of which one may be given in a gelatin capsule.—*Therapeutic Gazette.*

They Looked Through Colored Glasses.—A gentleman being troubled with sore throat visited an eminent genito-urinary specialist, who diagnosed secondary syphilis, and ordered mixed treatment, which afforded relief. He was then referred to a neurologist, who located the trouble in the brain, and prescribed strychnia and galvanism, which also failed to improve the throat. Then he went to a laryngologist, who decided that the trouble was catarrhal pharyngitis, which the patient said made him worse. Finally he fell into the hands of a well-known general practitioner, who prescribed for an old standing dyspepsia, and the throat was soon entirely well.—*Brooklyn Medical Journal.*

A New Rapid Process of Coloring the Tubercle Bacillus.—Mr. Gabriel Roux communicates a new method, by Martin Herman, of Liége, which is as follows: After the cover-glass preparations have been made as usual they are dipped for one minute in the following mixture: 1. Crystal violet, 1 gr., alcohol of 95°, 30 c. c., (a few drops), 2. Carbonate of ammonia, 1 gr., distilled water, 100 c. c. (a few cubic centimetres), which is kept at the boiling point during the entire period of immersion. Then wash in water and discolor for four or five seconds in a water solution of nitric acid, 1:10 for sputa and 1:4 for sections. Then wash in alcohol of 95 per cent. and examine immediately. If a double coloring is desired, immerse for one or two minutes in the following solution: Eosin 1 grm., alcohol of 60° 100 c. c. The great merit of this new process is that it is trustworthy, and requires no especial degree of skill; it is not any more rapid, nor any more brilliant in its results than its immediate predecessors, but it is more practical.—*La Province Médicale*, May 11, 1889.—*The Journal.*

Strophanthus as a Local Anæsthetic.—Many of the drugs which are useful in the treatment of cardiac disease also possess a local anæsthetic action. There is, of course, no connection, as far as can be seen at present, between the two actions. The local anæsthetic action of erythropleine was investigated last year by many observers; the conclusions arrived at were that, although it possessed a powerful local anæsthetic action, it causes irritation and dilitation of the conjunctiva, and in some cases even severe inflammation. It was thus much inferior to cocaine, whose action is accompanied by a constriction of vessels and consequent pallor of the part. Helleborin, the glucoside from the Christmas rose, is also a local anæsthetic and cardic tonic: one-fortieth of a grain in solution placed on a conjunctiva of rabbit causes complete anæsthesia in fifteen minutes, and there is at the same time no interference with the movements of the pupil and no dilatation of vessels. The action of this glucoside is therefore like that of the alkaloid cocaine; but it has not yet come into general use,

Steinach has lately shown that strophanthus seeds contain a body not identical with strophanthin, which when placed on the conjunctiva produces in twenty-five to thirty minutes complete anæsthesia, lasting from two to twelve hours. There are no great signs of irritation, but if applied to the eye of man it causes a slight feeling of burning, with a passing hyperæmia of the conjunctiva. This condition may pass on to cloudiness of the cornea in animals. The local anæsthetic action of strophanthus is, therefore, chiefly of pharmacological interest, like that of erthrophleine. Cocaine still holds its own when judiciously employed.—*Brit. Med. Review.*

Cardiac Syphilis.—According to Petersen, the proportion of cases of viscera syphilis in which lesions of the heart are to be found is as much as 5.5 per ct., being slightly more than those of the brain. The calculation is based on the results of 183 post mortem examinations in such cases, and is quoted at the close of an interesting monograph ("Die Syphilis des Herzens," Wein, 1889) recently published by Dr. T. Lang, of Vienna. Dr. Lang has collected from literature the scattered records of syphilitic heart disease, and shows how each part of the organ may be the seat of lesions attributable to syphilis. Endocarditis is, he says, very rare, except in association with myocarditis. It may be parietal or valvular. The former is the more common, and is met with (at least in extra-uterine life) as dense fibrous thickening upon the wall of the left ventricle, near the apex, or at the base near the root of the aorta, This form is fairly distinctive; but valvular endocarditis of syphilitic origin is only to be distinguished by the absence of any other etiological factor; large vegetations characterize it. Besides these forms, gummata may occur on the endocardium, generally in association with peri or myocarditis. Prominent among the symptoms is cardiac asthma, which was very marked in a case observed by the author, where also there was aphasia from cerebral embolism. Syphilitic myocarditis is less equivocal and perhaps more frequently productive of excessive interstitial growth of fibroid tissue, involving the outer wall of the ventricles mainly, less commonly the papillary muscles. It may be associated with gummata, Clinically, the disease is marked by irregularity in the rhythm and frequency of the pulse, by dyspnœa, without any evidence of enlargement of the heart or of valve disease. There may be angina, suggestive of a syphilitic affection of the cardiac nerves. Many cases terminate suddenly without any previous symptoms, but where the course is more prolonged the symptoms may be those of cardiac failure and dilatation, The diagnosis is only to be approximately made in cases with a marked syphilitic history, without evidence of alcoholism or of fatty degeneration. Prognosis is most unfavorable, but cases of "healed lesions" have been reported. Treatment consists in the administration of the iodides, and also of cardiac tonics, as cafferin and strophanthus, especially if there be much dyspnœa. Syphilitic pericarditis is mostly secondary to the disease of the myocardium, and is generally partial, and limited in distribution. Lastly, a rare case of congenital "syphilitic myoma" is given as an example of new growth in the heart wall attributable to syphilis. Dr. Lang's table of forty-four cases, which includes congenital as well as acquired disease, shows the preponderant number of instances between the ages of twenty-eight and thirty-seven years. He has collected some cases from the Pathological Society's Transactions (Cayley, Gould, Pasteur), as well as from the writings of Wilks and Hutchinson.—*Lancet.*

To avoid catarrhs, a family journal advises its readers to "keep the mouth shut." It occurs to us that certain other complaints might often be avoided by the same method, such as epistaxis and ecchymoses about the eyes, and law suits and razzle-dazzle and matrimony.

The Effects of Fear on the Development of Hydrophobia.—In a "Review of Therapeutics" published on the Continent some instructive examples are given showing the influence which the mental attitude exerts, or may exert, on the development of hydrophobia in persons who have been bitten by animals really or presumably rabid. It has, indeed, been declared that the increase of mortality from hydrophobia of late years is due far more to the generally diffused dread of the disease than to any increase in the number of rabid dogs, and that fully four-fifths of the persons who are returned in official lists as having died from hydrophobia have really succumbed to "nervous hydrophobia" or "lyssophobia." A striking instance of this is preserved in the records of the Montpelier Academy. Two sisters were bitten by a dog that was rabid, or supposed to be so. One of them went away immediately afterwards to Holland, and remained there for ten years without developing any of the symptoms of the disease. At the end of that time she returned and made inquiries about her sister, of whom she had heard nothing during the whole time she was away. She then heard that she had died shortly after they had parted from one another. This brought back to her remembrance the circumstance of the bite, which she seems to have forgotten; and, believing that it must have been the cause of death, she was seized with such great alarm about herself that she was attacked with a malady which was very much like hydrophobia, and died in a terrible fit. As, according to Trousseau, the effects of the virus of rabies only endure for a single year, this death at the end of ten years must have been due to spurious or nervous hydrophobia. Again, a gentleman's dog bit a number of sheep while out for a walk with his master, and the same day, while swimming a river, the animal got drowned. Shortly afterwards the gentleman was informed that several of the sheep had died, and he then remembered that the dog had been licking his hand the same morning that it had bitten the sheep. He fancied, too, that he could detect some small scars on his hand. He was seized with fright, and did not dare to touch water or to shave himself. He fully believed he had got hydrophodia, and took to his bed and was quite delirious for some days. A medical man did his best to calm his fears, but without success; however, after being repeatedly assured that if he had been the subject of hydrophobia he would have died at once, he took courage and recovered. Not only may the real disease be simulated by the nervous imitation of it, but, in some instances at least, it would almost seem that the true disease, even after it has begun to show itself unmistakably, may by the persistent effort of the will be shaken off. It is reported that Dr. Barthélemy, a well-known French physician, was one day bitten by a dog, and, though the wound was immediately cauterized, felt, some ten days afterwards, the commencement of throat spasm and difficulty in swallowing, which suggested to him that he had been seized with hydrophobia. He made up his mind to carry on his avocations as usual, and to go to the theatre and into society just as if nothing had occurred. He did so, and six days later the last signs of the terrible symptoms entirely disappeared. Another instance is given of a scientific man, who, after being bitten by a rabid cat, experienced pains in the arms and spasms in the throat. He, too, made up his mind to face the matter like a man and to brave it out. He consequently went out hunting, and, although the pain in the arms was excruciating, he walked about during the whole afternoon. In the evening he was better, and by the end of the week he had quite recovered. The article referred to points out that men of undoubted courage have doubtless succumbed to the disease, but that, nevertheless, to put a bold front on and face the matter out greatly increases the chances of safety.—*Lancet.*

Raw ham and bologna sausage had for years been favorite articles of diet with Joseph Palmi, aged thirty-four years, of New York. He died at Bellevue Hospital of trichinosis. His muscles were literally alive with the parasitic worms.

A New Mode of Administering Cod-Liver Oil.—M. Lefaki calls attention to a method of administering cod-liver oil which seems to possess considerable advantage (*Journal de Médecine et de Chirurgie*, May, 1889). If equal parts of cod-liver oil and lime-water are mixed together, a milky liquid is obtained which is inodorous, has the consistency of syrup, and may be flavored at will either with lemon syrup or vanilla, or other extract. The cod-liver oil thus saponified is almost agreeable to the taste, does not adhere to the mouth, and does not leave any nauseous after-taste. In addition to these advantages saponified cod-liver oil is preferable to the various emulsions which are on the market. In the first place, it is permanent, the fluid remaining homogeneous. It is readily assimilated even by weak stomachs; it may be administered even during diarrhœa; besides, it is combined with calcareous elements, which are likewise indicated in the affections which call for the use of the cod-liver oil. Of course, the saponified oil may be associated with the phosphates or the hypophosphites of lime. Finally, it may be readily and rapidly prepared, and is of low price.—*Therapeutic Gazette.*

Laminaria in Stricture of the Œsophagus.—Professor Senator has recently stated that for about a year past he has used laminaria in stricture of the gullet with comparative good results. A piece of laminaria is attached to the end of an ordinary œsophageal bougie, and for greater safety this is further connected with a string running through the whole length of the bougie. Different sizes are used according to circumstances. The instrument is passed into the stricture and left in position from half an hour to an hour, during which time the laminaria swells to a considerable extent. In one case it expanded from one to one and a half millimètre in the course of half an hour. The surface of the laminaria remains smooth, and does not injure the mucous membrane. In most of the cases in which Dr. Senator has tried this plan the stricture has been cancerous, and, as he says, although "by gradual and frequently repeated pressure a carcinoma may cicatrise and become atrophied, this very seldom happens." In a large proportion of his cases, however, the treatment produced very marked dilatation of the stricture, so that the patients after a certain time could swallow much better than before. In some instances there was no improvement, and Professor Senator confesses that at first his anxiety to dilate the stricture as quickly as possible made him apply the treatment without sufficient regard for the tolerance of the diseased parts. If due care is not exercised, the laminaria may swell so much as to cause great pain and even difficulty in removal. The most favorable cases for the treatment are of course those of cicatricial stricture. Dr. Senator points out that laminaria may also be used with good effect in narrowing of other canals, and he relates one case of stricture of the rectum in which he tried it, but apparently with indifferent success.—*British Medical Journal.*

Menthol in Laryngeal Tuberculosis.—Dr. Osendovski has found menthol, applied locally as well as taken internally, of great value in several cases of tuberculosis, where the inter-arytenoid region was affected, as well as where the vocal cords were ulcerated. Solutions of the strength of from 10 to 30 per cent. were applied by means of a Heryng's brush, and in two instances inhalations of menthol and magnesia were ordered. Except in one case where there was perichondritis, this treatment was followed by the diminution of the inflammation and pain and a cleaner appearance of the ulcers, but not by actual healing. When there is also pulmonary tuberculosis, Dr. Osendovski finds that it is advantageous to combine internal medication with menthol along with the local applications, which, by the way, must be persisted in for some weeks. The best strength to begin with for the local applications is 10 per cent.; this may be gradually increased to 30 per cent., but solutions of greater strength than this usually cause a good deal of irritation.—*Lancet.*

Death from Chloroform.—We have received the following particulars relative to a case of death under chloroform narcosis which recently occurred at University College Hospital: A powerfully-built man, aged 56, was admitted on June 15th on account of extensive epitheliomatous ulceration affecting the tongue and floor of the mouth. As he had been an habitual drunkard he was kept in the hospital and prepared for the operation, which took place on June 27. Although he was stated to have had an attack of acute Bright's disease, with extensive œdema, he was, at the time of the operation, free from albuminuria. While in hospital he had an epileptic fit; there was a history of previous fits. The operation undertaken was removal of the anterior half of the tongue and incisor portion of the jaw. Chloroform was administered by a house physician, who employed Junker's inhaler. The patient was a somewhat longer time than usual in going off, but otherwise took the anæsthetic well, until, at the close of the operation he became restless, and in order to place the lip stiches it was necessary to push the anæsthetic. During the operation very little blood was lost and the pulse was good. As soon as the chloroform was again resumed the patient's face became cyanotic and respiration stopped. The stump of the tongue was dragged forward—it had been kept well forward with a string all along—and one deep inspiration followed. An attempt was made to catheterise the larynx, when another deep gasp occurred. Subsequently to this no respirations took place, although artificial respiration was maintained for some time, having been commenced as soon as breathing appeared hampered. Laryngotomy was performed, but without effect. Indeed, there did not appear to be any mechanical hindrance to respiration. All the usual means of resuscitation were adopted, but without avail. A post mortem examination revealed a practically healthy heart muscle, but extensively adherent pleuræ. It may be added that the heart sounds were noted at the time of the operation, and were of normal character. It seems almost impossible that any further precautions could have been taken in this case, or that anything could have prevented its occurrence; no appreciable shock was evidenced and no contra-indication for the anæsthetic present.—*British Medical Journal.*

Changes in the Alkalinity of the Blood.—Dr. Peiper, of Griefswald, has examined the blood of healthy persons and that of patients suffering from various pathological conditions for the purpose of discovering whether the alkalinity is affected, and, if so, in what manner in disease. First of all, he found that the alkalinity of human blood varies only within somewhat narrow limits. Amongst healthy individuals it is least in children and greatest in men, the amount in the blood of women being intermediate. During the process of digestion the alkalinity increases. It is considerably increased by severe vomiting. Muscular action and strychnine convulsions lessen it. It is also less than normal in leukæmia, diabetes mellitus, chronic articular rheumatism, and severe anæmia, but in chlorosis it is increased. In the cachexia of carcinoma, in grave derangement of the organic metabolism, in destructive liver diseases, and in uræmia, the alkalinity is usually lessened. Again, in pyrexial diseases there is almost always less alkali, the diminution appearing to depend not so much on the duration of the fever as on its intensity. It appears also that during the administration of chloroform some effect in the direction of lessening the alkalinity is produced.—*Lancet.*

The epidemic of small-pox which has been raging at Ostend since the latter part of 1888 has now ceased. It is estimated that in the course of seven months and a half the number of deaths from small-pox amounted to 400 in a population of scarcely 25,000 souls. In March there were from thirty-six to thirty-seven deaths a week. No death has occurred since May 11th.

Pennsylvania prohibits the sale of cigarettes to children.

Medical Items.

There are one dozen negro physicians in Brooklyn.

Dr. J. Lewis Smith, Jr, son of Dr. J. Lewis Smith, died suddenly in New York.

Dr. McDow, the slayer of Captain Dawson. has been expelled from the South Carolina Medical Society.

In the English Parliament it was recently proposed to abolish the Faculties of Medicine in the Scottish Universities.

The Law Regulating the Practice of Medicine in Main has been declared invalid through a technicality.

Dr. Paul F. Mundé has been appointed consulting surgeon to St. Elizabeth's Hospital, New York.

Dr. A. E. M. Pond, the inventor of Pond's sphygmograph, died at Rutland, Vt., recently.

Many ladies of Montreal are trying to have the McGill University opened to women.

Dr. L. Emmet Holt and Dr. August Seibert have been elected professors of diseases of children at the New York Polyclinic.

The recent Legislature of Texas voted $50,000 for the establishment at Galveston of a medical branch of the State University.

A woman recently died in Racine of cancer, the growth at the time of her death weighing thirty-five pounds.

A petition has been addressed to the Municipal Council of Paris, praying for the substitution of electricity for the guillotine in the execution of capital sentences.

Dr. Julius von Wagner, of Vienna, is to be invited to take Professor Krafft-Ebing's chair of Nervous and Mental Diseases at Gratz, Austria.

The city of Ann Arbor, Mich., has voted to issue bonds for $25,000 for the erection of a hospital, for which the legislature appropriated $50,000.

Dr. Chaille states that the average life of woman is longer than that of man, and in most parts of the United States woman's expectation of life is greater.

A case of typhoid fever occurred in Harbor Creek, near Erie. On searching for the causes three decomposed toads and a lot of angle-worms were found in the well.

It is reported that half the candidates at a recent West Point examination were rejected because of defects induced by cigarette smoking.

A Chinese leper was discovered in the Sacramento jail recently. He had been sent there from Folsom for refusing to pay a poll tax.

Japan has thirty-one schools of medicine, four schools of pharmacy and two schools of veterinary surgery. At this rate the "Jap" profession will soon be in as bad a condition as Uncle Sams's.

A two year old child in Oshkosh was found with its tongue split from tip to roots. There being no knife or sharp instrument that the child could have had access to, it is thought that it cut it with its teeth.

Dr. H. Marion Sims and Dr. Henry C. Coe have been elected professors of gynecology at the New York Polyclinic. Dr. Coe has also been appointed surgeon to the New York Cancer Hospital.

Dr. Frank Donaldson and family will spend the summer in Europe and will visit Dr. Frank Donaldson, Jr., who lives in Europe. During Dr. Donaldson's absence Dr. William J. Jones of the University of Maryland, will take charge of his office.

The American Rhinological Association will hold its seventh annual meeting at Chicago, Ill., August 28, 29 and 30, 1880. The Committee on the Examination of the Inmates of Insane Asylums will make their reports "On the Relation of Rhinal Inflammations to the Mind" at this session.

Duke Charles Theodore, of Bavaria, a skillful ophthalmologist, is winning the affection and esteem of many of Bavaria's poor by his gratuitous services in their behalf. His wife, the Duchess, is his able assistant, and "performs the part of nurse and general benefactor."

Professsor Howell, of Johns Hopkins University, is quoted as saying that "many well substantiated cases are on record of the beard and hair growing long after the body had been interred." Surely this absurd popular error has not received sanction from such a man.

A certain Dr. Sequitz, of New York, has been so much impressed with the fact that the spread of consumption, is largely due to marriage between tuberculous couples that he has prepared and sent to the Health Board of that city a long communication urging the passage of a law that would prohibit the marriage of consumptives.

When Brown-Séquard's rejuvenator has been more fully investigated by others, it will then be time enough to become enthusiastic over it. Such remedies can be taken and absorbed by the stomach. Our menus will have a new course for old men, and this new dish will probably be as palatable as the much loved thymus and pancreas.

The Cartwright prize has been awarded to Dr. Ira Van Gieson, Assistant Instructor in Normal Histology in the College of Physicians and Surgeons of New York, for his essay entitled, "Studies in Neural Pathology, embracing, (1) A report of a Case of Syringo-myelia; and (2) A Contribution to the Pathology of the Laryngeal and other Crises in Tabes Dorsalis."

The *Medical Standard* calls attention to the growth of the "naphtha habit" among the female employees of rubber factories. The inhalation of naphtha fumes produces a peculiarly agreeable inebriation. Naphtha is used to clean rubbers, and is kept in large boilers to the valve of which the female employees obtain access and breathe the fumes. The habit was introduced from Germany, and is chiefly found in the New England States.

H. R. H. Duke Charles, M. D, of Bavaria, continues in the Bavarian Tyrol the philanthropic practice of ophthalmic surgery, to which he devotes the spring months in the Austrian Tyrol. On the 3rd instant, at the Tegern See, he performed with complete success his one-thousandth operation for cataract. For the occasion, which was a festive one, the surgical theatre was decorated with flowers by the sisters of the hospital, of which his Royal Highness is the patron and working president.

The Medical Faculty of the University of Munich has just awarded its prize for the best "Investigations on the Effects of the Various Kinds of Lees Occurring in the Preparation of Alcoholic Beverages on the Organism, Animal and Human." The successful candidate was Hans Neumayer, of the Medical School, whose essay more than satisfied all the requirements of the competition. For 1889-90 the subject of the prize will be "Can a Keratitis Interstialis be Produced Experimentally, and What are the Circumstances of the Same?"

The practical unfitness of women as physicians appears to be demonstrated at the Philadelphia Women's Medical College. As the older members of the Faculty drop out their places are gradually being filled by men. When Dr. Bodley died her place was filled by a man. Dr. Dickson resigned, and instead of putting in Emily Dubois, a graduate of the school, fully competent to fill the position, Dr. William Parish was selected. Dr. Marie Formad applied for the Chair of Pathology, vacated by her brother, but again the place was assigned to a man. The logical deduction is that the Woman's College is unable to develop from its own graduates suitable incumbants for these positions.

The Philadelphia *Ledger* states that the Indian government's endeavor to promote the study of medicine by women is said to be proving most successful. Of the Students in Calcutta women carried off numerous prizes and honors. A native girl, Rajni Mitter, ranked highest in the first M. B. examination, and carried off two prizes; Misses Sykes, Dissent and Pereira obtained certificates of honor in surgery; Miss Woods a special certificate of honor in anatomy; Miss Mitchell secured the Viceroy's medal, a certificate of honor in opthalmic medicine, and numerous prizes; Miss Muller took a gold medal in materia medica against all competitors, and a special certificate in anatomy; Miss Smyth won a gold medal in dentistry, and Miss Fox a certificate of honor in anatomy.

THE MORE RECENT TREATMENT OF PULMONARY PHTHISIS.

BY WILLIAM BUCKINGHAM CANFIELD, A. M., M. D.,
Chief of Chest Clinic, University of Maryland.

(Being part of the Report of the Section on Practice of Medicine before the Medical and Chirurgical State Faculty of Maryland at its 91st Annual Session, April, 1889.)

When I look at the number of therapeutic remedies suggested, even in the past twelve months, for the treatment of pulmonary phthisis, I feel that this part of the report might be extended indefinitely, with suggestions and speculations as to the efficacy of each remedy and the best one to use. The fact that there are so many modes of treatment published, shows the hopelessness of the attempt with our present knowledge. The curability of a disease (not the spontaneous cure) is generally in inverse proportion to the number of remedies offered for its cure. We all know with what zeal we seized upon Bergeon's method of treating consumption by rectal injection of gases, and the rather hopeful view taken by us all was shown in the report of this Section two years ago. Since that time many new remedies have come on, but the specific still remains unfound. Treatment has been carried out by—

1. Internal administration of drugs or medicines;
2. Intra-pulmonary injection;
3. Inhalations;
4. Climate, and cure occasionally occurs;
5. Spontaneously.

1. *Internal Treatment.* (*a*) Creosote. This remedy has been tried very energetically in the past few years. Authorities too numerous to quote all give it in about the same way. In my own practice I have used it in the formula as given by Beverly Robinson.* He used beechwood creosote, and gave it in combination with chloroform and alcohol, with inhalation of the same; also, with tincture of gentium. A good combination is with cod liver oil in capsules. He is convinced that it is a remedy of great value. Russian and German authorities have not had such great success and are not so sanguine. Since January 1, 1889, I have used it in five cases; with four the effect was scarcely noticeable, or was negative, although the patients might have been worse without it. The fifth has decidedly improved, and always looks forward to the medicine and inhaler. (*b*) Morrhuol. Dr. Joseph Lefage,* assisted by Dr. Chapoteaut, obtained a product from cod liver oil which they named morrhuol, and which represents the active principle of cod liver oil, with 90 per cent. of alcohol, separating it from the oil and submitting it (alcohol) to distillation. Morrhuol is acrid, bitter, very aromatic, and partly crystalline at ordinary temperatures. It contains iodine, bromine and phosphorus. The oil after its removal is tasteless and odorless. It is dispensed in capsules, the size of a pea, each containing about 20 centigrammes (3 grains), and representing a much larger quantity of cod liver oil. Chazeaud† has found that appetite improves under its use, digestion is regulated, weight and strength increased, cough lessened or cured, and nausea and vomiting are prevented by giving it in capsules. He gives from two to eight capsules daily, and finds that it sometimes produces acne like the cod liver. (*c*) Tannin. Demarco,‡ Ceccherelli,§ and Houzè‖ (Brussells) have all tried tannin with satisfaction to themselves and to their patients. I have had no experience in it. (*d*) Calomel. Dochman also speaks in the highest terms of calomel.

2. *Intra-pulmonary injection.* Kremianski's method of injecting aniline into the lung tissue had a short life. Those trying it soon reported on its inutility. Other substances have been tried in this same way; but the treatment is hardly adaptable to all patients.

3. *Inhalations.* The result of the discussion at the last meeting of the British Medical Association at Glasgow, as

*Transactions of the Association of American Physians, Vol. III.

*Biddle's Materia Medica, 11th ed., Phila. Blackiston, pp. 437, 438, 439.

†*Lancet*, 1887, II, 880.

‡*Lancet*, 1880, II, 437.

§*British Medical Journal*, 1888, I, 756.

‖*Lancet*, 1889, I. 493.

shown by Dr. C. T. Williams,* was. that medicated inhalations were of no lasting influence in the lung tissue. The inhalation of hydrofluoric acid, as suggested by Garcin, seem to ameliorate some of the symptoms for a short time; but the effect in most cases was lost after cessation of the treatment. Dr. Louis Weigert† has reported success with inhalations of hot air—dry air, heated to 150° - 180° C., [302°—356° F.] His whole plan and results are rather rose-colored.

4. *Climate.* The best results are undoubtedly obtained by climatic treatment, properly conducted under medical supervision, if taken at the very beginning. G. Cornet‡ has just published some inoculation experiments with tubercle bacillus in guinea pigs. He inoculated twelve guinea pigs with tuberculous matter; kept six confined in Berlin, and sent six to Davos, and all died alike. Such experiments are misleading. In regard to tubercle bacilli, in most of the cures vaunted by foreigners (German) writers, improvement was gauged by the diminution in the number of bacilli found and the reverse. This hardly seems to be the proper test. Although we cannot help recognizing the diagnostic importance of these bacilli, still we should keep in mind the lung or larnyngeal lesion, the general health, appetite of the patient, as a key to this improvement. I have repeatedly observed, as you all have, that patients in whom there was absolutely no signs or symptoms of phthisis, as obtained by ordinary means, had their sputa laden with bacilli; while again in well marked cases, not too far advanced, the bacilli were only to be found after many examinations. Again, as we should naturally suppose, laryngeal phthisis, even at this very incipiency, show a much larger number of bacilli in the microscopic field than lung trouble. From this we see the importance of the microscope in the diagnosis of the early stage of phthisis. As above stated, Dr. G. Hunter Mackenzie* says that the number of bacilli found in the sputa of any case does not seem to bear any reference to the severity of the case. One case may apparently improve, and yet bacilli in large numbers be found, or another case may grow worse, and the bacilli be very scanty. In the latter case the spores remain, and they are not easy to destroy. Lastly, this disease may end.

5. *Spontaneously.* Those of us who have seen and made large numbers of autopsies will remember having seen evidences of an old tuberculous disease long since cured, a lung with signs of a healed cavity or with an old cicatrix. Vibert† found in the Paris Morgue, in 131 persons between the ages of 20 and 55, all of whom had died violent or sudden deaths, that evidence of phthisis existed in 25, and in 17 of these (68 per cent.) it was cured. These facts should be borne in mind by those reporting cures from new remedies.

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British Med. Journal, 1888, II, 700.

†Internationale Klinische Rundschau, No. 51.

‡Centralblatt f. Klin. Medicin. No. 14, April 6, 1887.

INSANITY AND ALLIED AFFECTIONS.

BY ALEXANDER L. HODGDON, M. D., OF BALTIMORE.

HYTERO-MANIA.

Definition—Hystero-Mania is a form of insanity of a maniacal character which may develop in hysterical individuals of insane stock; or it may in isolated cases occur in those in whom there is no family history of insanity.

Causes—The prominent cause is an inherited predisposition to insanity. Another potent factor, I believe in a number of cases, is the abstinence from marriage. And there may be innumerable other causes, such as disappointment in love, which may produce the disease in one who has a predisposition thereto.

Symptoms—Under this head might be written a cyclopædia of hystero-maniacal symptoms, but let it suffice to point out in brief some of the very interesting

*Edinburgh Medical Journal, January, 1889.

†*Lancet*, 1888, II, 598.

manifestations of this disease. In quite a number of cases the disease develops by almost imperceptible stages in hysterical persons whose hysteria has been neglected and in whom, by their unhygienic conduct, a lack of brain stability has been produced which is quickly followed by an outbreak of hystero-mania. There are a few cases in which a sudden outbreak of the disease takes place. One of the most characteristic symptoms of the disease is that the delusions are nearly all of a sexual character, and they try to draw the attention of the physician to their reproductive organs. They may develop a great dislike to those who are nearest and dearest to them, and are apt to fall in love with nearly every person of the opposite sex who may chance to pass their way. They are inclined to be overbearing in the extreme and quickly loose their tempers without the slightest provocation.

They take a morbid delight in giving their attendants the greatest amount of trouble possible, and in their actions are the quintessence of arrogance. They will sit at times with a vacant stare on the face, as if engaged in the deepest species of meditation, then suddenly arouse themselves, at the same time giving vent to some exclamation which would lead you to think that they imagined they were holding intercourse with the spirit world. They are at times *nasty in their filthiness*, and you could believe them capable of almost any nasty act even to the eating of their own excreta. The hystero-maniac will urinate on her clothing and the bedding, spit on the floor, wipe it off with her pocket handkerchief, and as the nurse passes by will stuff the disgusting mass into her pocket. The physician has the greatest control over the individual afflicted with hysterical mania, she will mind him at times when she would not think of obeying any one else, and it is very seldom that she becomes insubordinate to his direct commands. Sometimes marked maniacal symptoms show themselves, such as throwing the first thing on which she can lay her hands at the object of her displeasure. She may spend a great part of the time masturbating; and right here I would like to say that I doubt the existence of a true masturbational insanity, but consider it as a form of hysterical insanity in which the masturbational tendency is the chief factor.

The hystero-maniac sometimes masturbates to such an extent that the genitalia are excoriated through the almost continual violent friction of the parts. She is subject to violent fits of laughter and sobbing and studies so well the methods of tantilization that she will set the most good-natured attendant nearly wild. There is a tendency toward an exacerbation of the symptoms at the menstrual periods. The subjects of this disease are not generally of a suicidal turn of mind, not but what they may threaten suicide but they are not apt to carry out their threats. They may refuse food under the delusion that some of their relatives are trying to poison them, but if a determined attendant tries to pour a liquid food down a patient's throat, the patient after a little struggle will be apt to take it without any further trouble, not only for that time, but for many times to come, especially if a little of the milk go down the wrong way, and cause a slight sensation of strangulation; for the hystero-maniac is apt to have a great love for life. Although in this disease the patient is not apt to take her own, nor I believe, the lives of others, yet there may be cases where I think the patient would almost undoubtedly take the lives of those whom she believed were in the habit of persecuting her. She may hate her physician at first, but I believe in this class of cases, as well as in any other violent form of insanity, the doctor's safety depends greatly on his firm demeanor. The patient may have many delusions such as believing that she is in communication with persons whom she used to know, but who at the time of the supposed interview have long been dead. The patient is apt to court a vaginal examination, simply for the purpose of having her medical adviser handle her genitals. She may have delusions that persons are pointing a gun at her, trying to shoot her, or she may think they are trying to kill some person of the male sex, whom she supposes she

is interested in. I think I cannot do better than right here to insert a series of letters written by a hystero-maniac. I consider hers a typical case, and her mental condition is well illustrated by the following letters which she wrote. She was unmarried, yet labored under the delusion that she was the wife of Mr. Andrew ——. Now, Mr. Andrew —— was a married man and had children by his wife, and yet strange to say this lady had the delusion that those children were hers, and that she had actually given birth to them. She hated this gentleman's wife, considering her a usurper, and I think would have tried to have taken her life had a fitting opportunity presented itself. It was a hard matter at first to bring her into submission to medical treatment, but after the first struggle was over she was very submissive almost all the time she remained under treatment. Here is one of the letters:

My dear Mr. Andrew ——,

Mrs. —— comes into my room every day after 12 o'clock and cuts out coats on the table here till dinner-time. Susan makes them on the machine, etc. She asked me if I was writing to my "*mari*" and I said "oui." I have a book to send you I believe you will like it. You came last night* you know I was very mad you may know how I am troubled.

Bertina.

A. M.

P. S.—I believe Mrs.† —— has come back to life.

(Second letter.)

Dear Mr. Andrew ——.

Please come to see me, for I am very ill, and you promised to marry me and I will have you by this bastard baby which I bear in my bosom.

Bertina.

*Mr. Andrew —— had not seen her for a long time.

†Mrs. ——had been dead for some time.

(Third Letter,)

My dear husband,

I would like to see my little girl this morning. I slept well and feel better, I hear her sweetly the words sing, her windows are shut down all the time. I hope Mr. Jacobs is doing well he ought to see you and the children. I live too unreal a life. I ate the owl I put away for your breakfast. I hope I shall see ——&——your devoted——will take good care of them. Are you out of pain?

Bertina.

I believe I can be a good mother to all the boys, I know the girls are safe with you. Sweet they show lovely traits. How sweet it is to be moved by them. I do not spare your dear eyes. Turning the key in the door does shock me too much I need something.

God bless you and keep you. I began to make Susan a baby dress yesterday.

(Fourth Letter.)

My dear husband.

I think it is time you were taking care of me for I do need a good deal of attention. I forget so many directions. This is the 3d month and I have just had a small discharge of blood and now am troubled with a very disagreeable diarrhœa. I think of you a great deal and often feel very anxious and disturbed about you. I am so sorry I did not do better when I met you in—— town, I feel very much to blame. I remember all your exertions and grieve over much wasted time. I hope if there are any differences to be made up between us you will soon put an end to them. I do not receive any letters of consequence. Your father sends me a kiss. I hope your mother is well. I do love them both wish I had a private post for this I get no leters from you. Write to me, I am,

Ever Your loving wife,

Bertina Andrew ————

I have no writing paper but this, but I trust this will reach you excuse the

outside. With deep contrition your humble wife,

Bertina.

Do I love thee ask the bee
If it loves the opening flowers,
Ask the parched and thirsty desert
If it loves refreshing showers,
Do I love thee, can the eagle
Cease to look upon the sun?
Can the wild ungoverned torrent
Choose the course that it shall run?
The falcon may stoop to mate
With the melancholy dove,
Though my love shall see all these things
Ere my heart shall cease to love.

Mr. Andrew ————

Kindness of the doctor.

(Fifth Letter.)

My dearest Andrew,

I love you for coming to see me again it is just like your kindness. I waited for you, your brother —— sat up outside and kept me from feeling afraid. I am greatly obliged to him and hope to meet him some day. He is very warm hearted. I am so afraid I shall say something to hurt your feelings. I am a great blunderer but do you know your relatives are liking me now. I hope I shall make you happy. I have not seen you to talk with you in the daytime for long. I may be very silly when I see you. I believe I am getting stronger though. Do take me away when you are ready. I want to be near you and try and help you more. I find that I can sew and read and write now with much ease. You must have something for me to do for you by this time. Dont mind my awkwardness I am afraid I get you into trouble sometimes without knowing it I dont like to be idle. I saw the doctor last night he gave me some pills but left me no medicine. Susan who has waited on me now since —— left expects to be confined next month sometime. She complains a great deal so I have been helping her a little. I gave you a ring do you know where it is?

Your wife,

Bertina.

Dear Mrs. ————

Je vous ai dit que that Andrew remained under the house.

(Sixth Letter.)

My dear husband,

I received your kiss and bless you for it. I understand you better every day. Oh I trust there is nothing between us. I forgive you I try to keep praying for you all the time do the same for me. I need prayers very often. I have much to thank the Lord for. Praise the Lord. A bird is singing sweetly by my window. May our Lord be with you all the day. I feel very restless and anxious about you. We pray for many conversions. He prays. I am so thankful that you can come to see me now. I hope I shall soon have one of your dear and precious letters. Mrs. ——— gave me this paper wasn't she kind? The doctor was called to see Mr. ——— and his driver went with him. I understand better how to be good. My dear Andrew. My dear Andrew. I love your name so much. Do you remember when you told me what it was. Do you remember when I sang for you? I want to hear you sing. Come and see me in the daytime. I try to keep up and not be afraid of the doctor. I suffer mostly with headache. My medicine is not very bad *just now*. My appetite is good. I wonder how you look. I am almost afraid to see you. My stockings are darned. I have not been sewing. I have two pairs of shoes here and one pair at home. I have two hats and a bonnet here but none of my summer things the hats are for summer. I left all my gloves at home and have an old pair to wear. My hair is coming out and my head keeps very hot. The nurse is kind. She has learned to act better than she did. I enjoyed my breakfast. I saw the doctor just before he went out. I have heard Mrs. ——— voice to-day. The nurse says she is not well. This I promise to say, I will I promise I don't know what you want me to write. I wish I did. I hope you get to church often and find comfort there. I feel very grateful to the sisters. Oh when they come around with their true voices I feel so happy. But I do not see any of them. Is there any reason why you will not write to me. Mr. ————

married us. Forgive me for forgetting. *Mrs. ——— lives. Why could I never come to in the olden time? I expect something sweet for that. I left some little debts out which worry me but I suppose I shall hear from them. I have one years subscription to pay for my magazine. I have seven dollars if I could get them. I have not had any of it. I here I have two dollars here. I will try to pay for my magazine with them, with Mrs. ——— assistance. Do you know I repeat not too much perhaps not enough. I feel troubled sometimes about I hope they are good children. Don't you think I am fit to see any of them yet. I want to help you I think you need me I believe you told me so. Four of us are ill. I think I heard your mother speak yesterday. I wish mine was well. I am tired now I feel the heat, give my love to someone. I get hungry and thirsty often. I am now. Good-bye love,

Your true wife,

Bertina Andrew ——

Come ——— is willing.

Prognosis—The prognosis of hystero-mania is a very difficult thing to make, for I believe that in this, as well as all other forms of insanity, much depends upon the method of treatment pursued, the surroundings of the patient, the presence of any complicating gross lesion of the brain, heredity and the length of time the disease may have existed, suspected or otherwise. Also upon the general physical condition of the patient, and whether the hysterical element is the main trouble or the complicating mania. I believe that there are very few cases of chronic hystero-mania cured. The prognosis as to life is favorable.

Diagnosis—The separation of hystero-mania from other forms of mental disease is not as a rule attended with much difficulty. From simple hysteria it can readily be separated, for in hysteria there is no real delusion, and if there be one present it is merely there to attract the attention of others, and not as a matter of firm belief, in the patient's mind. In regard to grand hysteria (hystero-epilepsy so called) there may be considerable difficulty, owing to the liability of a grand hysteriac becoming a hystero-maniac, and besides the hystero-mania may be masked by the hysterical convulsion, so if one be not on their guard they may express an opinion that a case of hystero-mania masked by grand hysterical convulsions is merely a case of grand hysteria, when the patient who is in the convulsion may not have spoken words indicating that she was the subject of a delusion. From all other nervous and mental disorders it may be diagnosed generally without difficulty.

Treatment—The primary question in this, as in all other forms of insanity, is shall a patient be sent to an asylum or be treated at home. In my opinion I should unhesitatsngly say *treat the patient at home if possible in all forms of insanity.* It has been my experience that the great majority of alienists are connected with asylums and that the general practitioner would rather cope with *any* case, Gynæcological, Surgical, Opthalmological, or any other case than to take under treatment a patient the victim of mental disease. Consequently, when such a case presents itself the query which naturally arises in his mind is: What shall I do with it? He is not an alienist himself and there may be no specialist in insanity (who is not connected with some asylum) within one hundred miles of him, and seeing that he cannot find an alienist to consult he sends his patient to the asylum, which, in his judgment, is the best, and he knows that there he will be under the treatment of one who makes a specialty of that disease. I believe that the time will come when the asylums will only be used for the incurable insane, who are apt at any time to do damage to themselves or others; also for those cases which are curable, but who lack the means to hire an attendant, and who have no friends to take the place of an attendant. If there be any who doubt as to the progress of the alienistic specialty all that they have to do is to compare the treatment of the insane of to-day with that of a hundred years ago, and they cannot well help

*Mrs. ——— had been dead for some time.

being convinced as to the marvellous strides which have been made in the treatment of insanity. The individual with mind diseased is no longer treated like a wild beast, but has all the kind attention shown him that a patient suffering from pneumonia might receive. Why this kind mode of treatment was not in vogue years ago it is impossible to answer. Why was not the diseased mental system treated rationally, as well as the diseased respiratory system? These are questions which are hard to answer. In the opinion of the author the patient should have plenty of exercise, good, nourishing food, and the application of the Faradic current may benefit some cases. Any conversation held in the presence of the patient should never be of a depressing nature, and the straight-jacket should not be used oftener than is absolutely necessary. Strict discipline should be observed; the patients should not be obliged to do things distasteful to them, unless it be something absolutely beneficial to health and discipline. The cold head bath and Faradic current applied to the lower extremities are both excellent means to limit the blood supply in the brain, when there is cerebral hyperæmia present. Food should be given and the patient required to take it, if necessary, by means of the stomach pump. Bitter tonics may be given, and the Iodide of Potassium. Attention should be paid to the state of the bowels and a cathartic administered when indicated. I think the best plan, if the patient tries to talk on the subject of her delusion, is to turn the subject as soon as possible, and make the conversation of a cheerful nature. At times a sedative may be required, and then the question arises as to which one or ones to use. I am strongly opposed to chloral in large doses in any form of mental disease. Bromide of Potassium may be found useful at times, but when there is intense excitement present the following formula has yielded me better results, in hystero-mania than any other sedative or combination of sedatives:

℞	Extr. Cimicifug. Fluid,	℥iss
	Extr. Vifur. Prunifol. Fluid,	℥i
	Extr. Conii, Fluid,	℥i
	*Tinct. Cannab. Indic.,	℥iss
	Syrup,	℥x.

M. et Sig.—Two teaspoonfuls three times a day; and see that its components are thoroughly mixed before exhibiting.

Two of the ingredients of the formula before mentioned—the hemp and the hemlock—are of notoriously uncertain strength. Hence the proportion of each of these drugs to the rest of the prescription must always be governed by their respective strengths, and the mixture should never be administered excepting with extreme caution, carefully watching its effects.

The hystero-maniac, if cured, should be carefully guarded against a relapse, and marriage to an individual of an anti-neurotic temperament would, in the opinion of the author, be one of the best things for the patient, and would help to guard against the transmission of the hereditary predisposition to the offspring—should any progeny follow the marriage.

Dr. L. McLane Tiffany did a bold and curious operation recently. A man, 56 years old, had been treated for several years for supposed catarrh of the bladder. Dr. Tiffany washed out the bladder and found a stone. An examination of the urine and a tenderness in the region of the left kidney both suggested a pyelo-nephritis. He put the man on his face, cut, and found an abscess of the kidney, then turned him over on his back at the same sitting, cut and removed the stone in the bladder. The operation was done an a month ago, and the man is well.

It is said that Dr. James E. Reeves, of Chattanooga, has discovered the cancer bacteria.

*The tincture of hemp used in the formula was made from the English extract and alcohol in proportion of one drachm of the extract to two ounces of alcohol.

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BALTIMORE, AUGUST 3, 1889.

Editorial.

THE TRUE ATTITUDE OF THE MEDICAL PROFESSION TOWARD THE LIQUOR QUESTION.

The movement recently initiated by prominent men in this city in favor of High License deserves the attention and support of every public-spirited physician. The low bar-room is undoubtedly a great enemy to public prosperity and morality. Here the workman spends his wages, forgetting the rights and necessities of his destitute family; here vice and crime grow and flourish; here the seeds of disease are sown which will in time ruin the health of the drinker; here all that is mean and dirty in politics finds a congenial home.

But the liquor question affects the practitioner in even a more personal manner than this. Many a physician depends for his livelihood upon the very class in the community which is most affected by the saloon—the mechanic and the day-laborer.

The few dollars which come to him through disease and accident caused by drink are as nothing compared to the hundreds of dollars which he loses each year in attending in families where the parents are drunkards. The saloon is truly no friend to the doctor when it keeps from him the money which he has honestly earned. The prosperity of the physician depends upon the honesty and thrift of the families in which he attends. The low saloon destroys these qualities in those who come under its influence.

More than this, the physician is directly taxed to support the drunkard in idleness, and to furnish food and medicine for his deserted family, to say nothing of the sums expended in meting out justice to the drunken criminal.

It seems but natural, therefore, that members of the profession should use their influence in favor of any lawful measure which shall limit the number of drinking saloons, especially among the homes of the laboring classes, which shall forbid the sale of poisonous liquors, which shall refuse licenses to men of bad reputation, and prevent the sale of liquor to persons already intoxicated, while it compels the saloon owner to pay into the city treasury a good-sized contribution toward the support of the courts, the police and the almshouse.

DR. E. M. HARTWELL, of the Johns Hopkins University, was married in England last week.

Reviews, Books and Pamphlets.

A System of Obstetrics, by American Authors. Edited by Barton Cooke Hirst, M. D., Associate Professor of Obstetrics in the University of Pennsylvania. Volume II. Illustrated with 221 Engravings on wood. Philadelphia: Lea Brothers & Co. 1889. Pp. 854.

With this volume the Cyclopedia of Obstetrics closes. It is composed of thirteen different monographs of the highest merit. In speaking of the forceps E. P. Davis gives the different kinds and suggests the simplest in construction is the best, he also suggests that the application of the forceps to save the time and promote the convenience of the obstetrician is not to be commended. Cæsarean section, with all its various modifications, is discussed and to peuperal fever, especially from a vactenological standpoint, a large amount of space is devoted. The newborn child receives a small amount of attention at the end of the work.

Diseases of Women: A Manual of Non-Surgical Gynecology, designed especially for the use of students and general practitioners. By F. H. Davenport, A. B., M. D., Assistant in Gynecology, Harvard Medical School; Assistant Surgeon to the Free Hospital for Women, Physician to the Department of Gynecology, Boston Dispensary, with numerous illustrations. Philadelphia: Lea Bros. & Co.. 1889. Pp. 317. Price $1.50

This little book, like others of its kind, is intended to give a hint as to the treatment of certain non-surgical diseases of women. It is evidently the result of several years' experience in hospital and teaching, and the author has very clearly expressed himself both in the text and illustrations. It is, however, very difficult to define exactly the line between surgical and non-surgical diseases without treating some subjects very incompletely.

Transactions of the Southern Surgical and Gynecological Association. Vol. I. Session of 1888. Browningham, December 4th to 6th. Organized 1887. Browningham, 1889. Pp. 318.

In the enterprise which has characterized some of the Southern cities of late the medical men have not escaped, as shown, at least in this volume, of about 29 excellent articles on surgical and gynecological subjects. It would be impossible in a limited space to notice such articles, but suffice it to say that most of the articles are written in a most interesting and instructive style. The society, many of whose members are known throughout the North, has on its roll 97, with a limited membership of 100, none of whom are from north of Virginia.

A Treatise on Surgery, its Principles Practice. By T. Holmes, M A. Cantab. Consulting Surgeon to Saint George's Hospital, etc., London. With 428 illustrations. Fifth Edition edited by T. Pickering Pick. Philadelphia: Lea Brothers & Co. 1889. Pp. 1008. Price, cloth $6.00, leather $7.00.

In this edition of Holmes' Surgery no very marked changes are observed, unless it be the omission of the chapter on the diseases of the eye.

A large part of many chapters has been re-written and brought up to the standard of our present state of knowledge of surgery. Articles on Tumors, Abdominal and Brain Surgery must, of necessity, have been changed, so great have been the advances in this department. It is, in its present shape, an excellent work for students.

Woods' Medical and Surgical Monographs. Vol. III, No. 1. *Cancer and Cancerous Diseases.* By Sir Spencer Wells, Bart., F. R. C. S. *Cardiac Dyspnœa and Cardiac Asthma.* By Dr. S. von Basch. *The Influence of Menstruation and of the Pathological Condition of the Uterus on Cutaneous Diseases.* By Dr. L. Grel-

LETY. *Tension as met with in Surgical Practice; Inflammation of Bone, Cranial and Intra-Cranial Injury.* By T. BRYANT, F. R. C. S. *Antisepsis and its Relation to Bacteriology.* By DR. J. NEUDORFER. New York: Wm. Wood & Co. July, 1889. $10.00 a year; single copies, $1.00.

This volume contains five very readable articles, the best of which, by far, is the first. All of the articles are of recent date and deal with subjects of especial interest to the profession.

Synopsis of Human Anatomy, being a complete Compend of Anatomy, including the Anatomy of the Viscera and various tables. By JAMES K. YOUNG, M. D., Instructor in Orphopædic Surgery, and Assistant Demonstrator of Surgery in the University of Pennsylvania, etc. Philadelphia and London: F. A. Davis, publisher, 1889. Pp. 393. Price, $1.40 net.

This is a small compend which might be of some use in cramming for an examination, or as a hasty review in the dissecting room. There are so many of such books already on the market that it is a wonder a publisher would have the courage to put out a new one, even though it have merit.

The Physician Himself and Things that Concern his Reputation and Success. By D. W. CATHELL, M. D., Baltimore, Md.; The 9th Edition, Revised and Enlarged. Philadelphia and London: F. A. Davis. 1889. Pp. 298.

Few books which reach a ninth edition in a short time need the reviewer's criticism. Their reputation in this time is made, and yet they may be largely made up of quotation. How much more then should we admire a book built up entirely with thought, experience, commonsense, full of good avice, suggestive and instructive. The fitting aphorisms and bits of sound advice look so simple that one is apt to say, "Why, I knew that long ago;" or, "Anyone could have said that." The trouble is that one who knew this long ago never reduced his thoughts to the proper condensation. It would be difficult indeed to criticise the book throughout. The advice is in almost all cases good and sound. The advice to spend unoccupied moments among other places, "at a friend's drug store," is not good for the city physician, whatever may be done in the country. The author has the proper idea of a preliminary education and an acquaintance with the languages, ancient and modern. He also gives solid advice when he tells the young man to keep a day book, cash book and ledger, and attend to his bills. The reviewer had taken pencil in hand to mark passages worthy of notice, but after disfigurring many pages it was found that the whole book is worthy of especial notice as having been written by a man who has proved most of the rules laid down and by a close student of human nature. Every medical man, young or old, no matter how much he may appreciate his own infinite knowledge, should read this book and profit by it. The book is well printed and bound.

Immunity through Leucomaines. By EUSEBIO GUELL BACIGALUPI. Translated from the Second French edition by R. F. Rafael, M. D. New York: J. H. Vail & Co. 1889. Pp. 170.

This is an explanation of a theory supposed to have originated with the author that the state of immunity against a certain disease will last just as long as the less common of the micro-organism causing that disease remain in the body active. It is written in the usual French style, oratorical and appealing, and the English translation being quite literal sounds at times rather pathetic.

Cerebral Socialization in its Practical Relations. By CHARLES K. MILLS, Philadelphia. Paper read before the Congress of American Physicians and Surgeons, Washington, D. C., September 19, 1888.

The Mutual Relations of the Medical Profession, its Press and the Community. By Dr. Horatio K. Storer, Jr., of Boston. [Reprinted from the *Journal of the Gynæcological Society of Boston.* 1872.]

Change in the Color of the Hair, from the White Hair of Old Age to Black, Produced by Jaborandi. By D. W. Prentiss, A. M., M. D., Washington, D. C. [Reprinted from *The Therapeutic Gazette*, April 15, 1889.]

The Radical Cure of Hernia. By Thos. W. Kay, M. D., Scranton, Pa. [Reprinted from *Maryland Medical Journal* of March 3, 1888.]

A Suggestion in Hepatic Surgery, with an Illustrative Case. By Thos. W. Kay, M. D., ex-Surgeon to the Johanniter Hospital, Beirut, Syria. [Reprinted from the *Maryland Medical Journal.*]

Medical Education and the Laws Regulating the Practice of Medicine in Turkey. By Thos. W. Kay, M. D., ex-Surgeon to the Johanniter Hospital, Beirut, Syria. [Reprinted from the *Journal of the American Medical Association*, June 8, 1889.]

A Case of Hodgkin's Disease, accompanied by a Possible Resulting Paraplegia. Reported by Lewis H. Adler, Jr., M. D., Resident Physician, University Hospital, Philadelphia. From *The Medical News*, January 12, 1889.

Report of a case of Hystero-Epilepsey in a Man. By Lewis H. Adler, Jr., M. D., Resident Physician, University Hospital, Philadelphia. From *The Medical News*, March 9, 1889.

Report of Amputations performed at the Hospital of the University of Pennsylvania, from September 30, 1874, to December 31, 1888. By Lewis H. Adler, Jr., M. D., late Resident Physician, University Hospital. From *The Medical and Surgical Reporter*, May 11, 1889.

Report of a case of Stricture of the Rectum, the probable result of a Specific Vaginitis. By Lewis H. Adler, Jr., M. D., late Resident Physician, University Hospital, Philadelphia, Penna. From *The Medical and Surgical Reporter*, June 29, 1889.

Scribner's Monthly for August, 1889.

Miscellany.

Receptivity of the Urinary Apparatus to Microbic Invasion.—Under this title there appears in *L'Union Médicale*, May 4, a most entertaining and valuable paper by Professor Guyon, which he read before the Academy of Sciences of Paris at one of its recent meetings. According to this distinguished teacher, infection of the urinary apparatus does not occur except after a preliminary preparation, which produces a "state of receptivity." This preliminary preparation includes such conditions as retention of urine, traumatic or spontaneous lesions of the urethra, the bladder or the kidneys, any of which "modifies the nutrition or the normal functions of these organs." The paper considers but one of these, retention of urine, and contains a *résumé* of some interesting experiments as well as observations from a clinical standpoint, both of which the writer is especially well qualified to make, and which are worthy the attention of every physician.

The experiments consisted first in the injection into the bladder of the rabbit and the ginea-pig of pure cultures of the staphylococcus aureus, and the streptococcus pyogenes, with the result that twenty-four or thirty-six hours later, they were not found in the urine, nor, upon killing the animals was any pathological lesion discovered. In order to obtain infection of the bladder for several days it was necessary to inject into it large quantities of very virulent micro-organisms, and even then they were found only in the bladder, the upper urinary passages being intact.

The next series of experiments was made with a view of determining the pathological changes wrought by retention of urine, this condition being produced by ligating the penis of a rabbit and of a ginea-pig. The result here, so far as pathological infection was concerned, was again negative, nothing else than distention, vascular injection, and ecchymoses of the bladder, dilatation and tension of the ureters, and congestion of the kidneys being found.

In the third series, before litigating the penis, culture fluids of pathogenic microbes were injected into the bladder, and the following results obtained:

If the ligature had been kept on from six to twelve hours, there were observed œdematous swelling and dulness of the vesical mucous membrane, the retention being "too temporary to develop the condition of receptivity;" if the ligature was not removed for twenty-four hours, or better, if left in place until the animal died, cystitis was established, and in two experiments the injected microbes were found not only in the bladder but even in the urine in the calyces of the kidneys. Prof. Guyon concludes that these facts show that "retention of urine favors the infection of the urinary apparatus by rendering effective microbic inoculation," and that "the receptivity is equal in degree to the duration of the retention," by virtue of the lesions it produces in the acute as well as in the gradual form.

Clinically, the form of retention called by Prof. Guyon "incomplete retention with distention," furnishes accurately the conditions of receptivity—stasis of urine in the bladder relieved only by overflow, stasis in the ureters, stasis in the pelves of the kidneys, and even in the uriniferous tubules, and in the class of patients in whom this form of retention is met with there must be added to these local pathological states changes in the local nutrition due to interstitial lesions, to arterio-sclerosis and to the slackening of the circulation which maintains a permanent state of congestion.

In acute retention, the urgent necessity for interference greatly modifies the conditions of receptivity, but the young, vigorous subject of stricture presents a very different general condition from that of the infirm, atheromatous sufferer from prostatic enlargement. Both may suffer from this form of retention, and should infection from the use of a septic catheter occur—unless there be additional lesions, such as traumatisms, Prof. Guyon states that it remains localized in the bladder, being in the stricture case rarely persistent, while in the other variety of patients the condition remains, but extends only slowly to the ureters and kidneys.

A demonstration of great practical value, furnished by Prof. Guyon's observations and experiments is this—that infection of the bladder is most often induced by direct inoculation by means of instruments.

Since this is so, it behooves him who passes a catheter for the relief of retention, and especially the retention of slow accumulation due to enlargement of the prostate gland, to be sure that the procedure is done with an *asseptic* instrument, and, with the determination to preserve a local aseptic state, to employ such *antiseptic* measures as may be adaptable. Those having the care of urethral and vesical instruments should have impressed upon them the fact that it is just as necessary to cleanse them thoroughly after use, and to render them aseptic before their employment, as any instrument used in the various operations of surgery.—*University Med. Magazine.*

Training School for Nurses in the Johns Hopkins Hospital.—The Johns Hopkins Hospital has made arrangements for giving two years' training to women desirous of learning the art of caring for the sick.

Those wishing to obtain the course of instruction must apply to the Superintendent of the Training School, upon whose approval they will be received into the school for one month, on probation. The acceptable age for candidates is from twenty-three to thirty-five years. The applicant should send with answers to the paper of questions, a letter from a clergyman, testifying to her good moral character, and from a physician, stating that she is in sound health. Applicants

are received at any time during the year when there is a vacancy. During the month of trial and previous to being accepted as a pupil in the school, the applicant must be prepared for an examination in reading, penmanship, simple arithmetic, and English dictation. The examination is to test the applicant's ability to read aloud well, to write legibly and accurately, to keep simple accounts, and to take notes of lectures. This amount of education is *indispensable* for a member of the School, but applicants are reminded that women of superior education and cultivation will be preferred.

The Superintendent will decide as to their fitness for the work, and the propriety of retaining or dismissing them. She can, also, with the approval of the Board of Trustees, discharge a pupil at any time in case of misconduct or inefficiency. During the month of probation the pupils are boarded and lodged at the expense of the School, but receive no other compensation.

Those who prove satisfactory will be accepted as pupils, after signing the following agreement:

I, the undersigned, do hereby agree to remain two years from date a pupil of the above-named institution; and promise during that time to faithfully obey the rules of the school and hospital, and to be subordinate to the authorities governing the same.

They will reside in the Home and serve for the first year as assistants in the wards of the Hospital, the second year they will be expected to perform any duty assigned them by the Superintendent, either to be on service in the Hospital, or to be sent to private patients on application or to district nursing among the poor.

In addition to their board and lodging, the pupils will be allowed eight dollars a month for the first year, and for the second year twelve dollars. This is not given as pay for service rendered, as the teaching given and profession acquired are considered an ample equivalent, but is allowed for uniform, textbooks, and other expenses incidental to their training.

They are required after the month of probation, when on duty, to wear the dress prescribed by the institution, which is of pale blue gingham, simply made, white apron and cap, and linen collar and cuffs.

The day nurses are on duty from 7.30 A. M. to 7.30 P. M., with an hour off for dinner, and additional time for study, exercise, or rest. Unless in an emergency they are also given an afternoon during the week, and half of Sunday, and a vacation of two weeks is allowed each year. Pupils are not placed on night-duty until they have been in the school three months.

As the institution is unsectarian there are no religious services connected with it except evening prayers, and all pupils are expected to attend the places of worship they prefer once on Sunday.

In sickness all pupils will be cared for gratuitously, but time so lost must be made up.

The course of instruction will be given by visiting and resident physicians and surgeons at the bedside of the patients, and by the Superintendent and Head-nurses. A regular course of lectures, recitations and demonstrations will be given, and examinations at stated periods.

When the full term of two years is ended, the nurses thus trained will be at liberty to choose their own field of labor, whether in hospitals, in private families, or in district nursing among the poor. On leaving the school, they will, on passing an examination, each receive a diploma, and will be expected for the next few years to make an annual report to the Superintendent.—*Johns Hopkins University Circular.*

The Congress of German Physicians.—On June 25th the seventeenth Congress of German Physicians met at Brunswick and passed the following resolutions:—"(*a*) 1. Every kind of public laudation, whether it proceeds from the physician in question himself or from others, and continued advertising in public papers, are to be reprobated. 2. The designation 'specialist,' for puffing purposes, is to be reprobated.

3. The public offering of medical assistance gratis, underbidding, in concluding contracts with sick societies and the like, offering advantages of any kind to a third person, in order to procure practice, are inadmissible. The designations 'Klinik' and 'Poliklinik' (hospital) belong exclusively to institutions which serve the purposes of instruction in connextion with universities. 4. The ordering and recommending of secret remedies are inadmissable. 5. Any attempt of any kind on the part of a physician to intrude upon the practice of another is dishonorable, especially in the case of one who has acted as substitute or in consultation. A practitioner must by no means undertake the treatment of the case without the express assent of the previous physician. A specialist called in for a definite part of the treatment must strictly confine himself to that. 6. No physician is at liberty to make disparaging remarks to others about another physician. (*b*) For the enforcement of these rules, courts of honor (or the like) are to be established everywhere, with whom the power of breaking off the professional connexion rests as an effective measure against those physicians for whom warnings do not suffice." As regards the position of the physician as an expert witness in courts of law, which has been the subject of many conflicts between judges and physicians, the Congress passed the following resolutions:—"1. If a physician be summoned to act as an expert witness in a court of law, and if questions be put to him which he can answer only as an expert, he has to ask the Court whether it be not advisable to swear him as an expert. 2. If the Court refuse to do so, and if the physician be nevertheless compelled to give his opinion as an expert, he shall complain to the competent authority. 3. If a physician be called upon to give his opinion as an expert on the basis of statements which the physician who treated the case in question has made as an expert witness, he must conscientiously ask himself whether he is able to give a pertinent opinion on the basis of these statements; and if his conscience tell him that he cannot, he must make the giving of his opinion dependent on co-operation with the physician who treated the case, and who must be called as an expert witness. 4. The supreme legal authoritities shall be requested urgently to recommend the courts always, even when one of the parties objects, to appoint the physician who has treated the case, as, if not the sole expert, yet one of the experts in conjunction with other physicians in cases in which the said physician has been examined as an expert witness, and an expert medical opinion is to be heard on the basis of his statements." The Congress further resolved to express its opinion that drunkenness should be recognized as a reason for placing a person under trustees; also that the obligatory period of medical study, including the term of military service, should be fixed at not less than five years.—*Lancet.*

The Prophylaxis of Consumption.—The Board of Health of New York has followed up the report of its pathologists on the contagiousness of tuberculous diseases with the publication of a series of rules to be observed for the prevention of consumption. The first directs that the sputa of suspected consumptives should be received in earthen or glass dishes containing a solution of bichloride of mercury, 1 to 1000. The other rules are as follows:

2. Do not sleep in a room occupied by a person suspected of having consumption. The living rooms of a consumptive patient should have as little furniture as practicable. Hangings should be completely avoided. The use of carpets, rugs, etc., ought always to be avoided.

3. Do not fail to wash thoroughly the eating utensils of a person suspected of having consumption as soon after eating as possible, using boiling water for the purpose.

4. Do not mingle the unwashed clothing of consumptive patients with similar clothing of other persons.

5. Do not fail to catch the bowel discharges of consumptive patients with diarrhœa in a vessel containing corro-

sive sublimate one part, water one thousand parts.

6. Do not fail to consult the family physician regarding the social relations of persons suffering from suspected consumption.

7. Do not permit mothers suspected of having consumption to nurse their offspring.

8. Household pets (animals or birds) are quite susceptible to tuberculosis; therefore, do not expose them to persons affected with consumption. Also, do not keep, but destroy at once all household pets suspected of having consumption, otherwise they may give it to human beings.

9. Do not fail to thoroughly cleanse the floors, walls and ceilings of the living and sleeping rooms of persons suffering from consumption at least once in two weeks.

Ten thousand copies of these rules are to be printed for distribution.

Unsuspected Lead Poisoning.—Dr. Lermuseau has brought before the Liège Medical Society some instances showing that a good many cases of colic, the origin of which is unsuspected, are in reality nothing but cases of lead poisoning. A large number of them are due to the practice of pumping up beer in public houses through leaden pipes, or at least through pipes which contain a considerable proportion of lead. Publicans and others frequently drink this beer early in the morning on an empty stomach, and this habit is a most fruitful source of lead colic. Of course in many cases there is a blue line to be found on the gums, but sometimes this is absent, and then the diagnosis is very difficult. Occasionally the so-called method of Cicconardi may be useful in clearing up the diagnosis. In has been employed in Professor Rommelaere's wards, and consists in painting the surface of the skin covering the thorax with a 6 per cent. solution of sulphite of soda. If lead is present in the tissues a dark discoloration caused by the formation of the sulphite soon makes its appearance. Dr. Lermuseau complains of the apathy and incredulity of publicans even after their attention has been called to the danger of using leaden pipes for their beer—a danger from which the publican is usually the very first to suffer. It is urged that a stringent law ought to be passed entirely forbidding the use of leaden pipes for beer pumps. Dr. Lermuseau suggests the substitution of glass or hard rubber pipes, but these substances are less convenient, because they cannot be bent in all directions in the way that lead can. It would appear that, according to a law made in 1790, the Communal administrations have all along had ample power to deal with cases of this kind if they would only exercise it. Something more stringent is necessary, and Dr. Lermuseau urges upon his *confreres* to bring all the pressure possible to bear upon members of the two Houses of Parliament in order to get some more satisfactory legislation on the subject.—*Lancet.*

Concurrence of Measles and Chicken-Pox in the same Subject.—The concurrent appearance of two of the exanthemata is sufficiently rare to have led some to question whether it is possible for an individual to be attacked simultaneously with two specific diseases. To be sure, there is no *a priori* reason against such a phenomenon, since it is conceivable that more than one virus may be introduced into the body at the same time; but there has been an impression that the presence of one such disease excludes the possibility of the other being also present. Every now and then, however, cases are recorded which refute such objections, and at a recent meeting of the Paris Clinical Society Dr. J. Comby read notes of a case (*La France Médicale*, No. 72) where a child of two years of age was attacked simultaneously with measles and varicella. On the third day of the child manifesting febrile and catarrhal symptoms there was a vesicular eruption on the forehead and back, some of the vesicles being umbilicated. There occurred also erythematous patches and a miliary rash scattered over the trunk and limbs; whilst the skin of the face was uniformly reddened, almost erysipelatous, the eyelids œdematous, the nares

obstructed, the tongue coated, and the velum palati reddened. There was a frequent cough, and abundant râles throughout the chest. On the fifth day of the eruption the measles rash had faded, being replaced by desquamation, whilst the "varicellar" eruption still persisted, the vesicles not showing signs of desiccation, as if the presence of the measles rash had caused a retardation in the usual evolution of the vesicles, which were not fully desiccated until another week had elapsed. There was considerable bronchitis, also some otorrhœa, and, lastly, a transitory anasarca, without albuminuria.—*Lancet.*

Acromegaly.—Although there may be not much virtue in a name, yet the man who first gives a name, even though it be his own patronymic, to a clinical group of signs and symptoms, confers a real benefit on clinical medicine and pathology. Acromegaly, considered as a word, is cacophonous, but Dr. Pierre Marie, did a service to medical science, if not to philology, by its introduction. So long as some unusual complex of symptoms has no name, each case is apt to be regarded by its observer as an isolated case of merely curious interest. As soon as a name is applied, a knowledge of the condition is popularised. A reader who will not be at the trouble to read "a report of a case in which there was hypertrophy of the head, hands, and other parts" may yet have his curiosity aroused by the novel term acromegaly, and he will be prepared to recognize a case of what has now become for him a distinct disease. The name is not yet more than three years old, yet the number of cases since recorded is considerable. In this country we may refer to the two cases reported to the Clinical Society by Mr. Godlee and Messrs. Hadden and Ballance respectively last year, and the two cases shown to the Birmingham and Midland Counties Branch of the British Medical Association by Drs. Saundby and Simon. The most recent cases recorded abroad is one observed by Dr. Farge, of Angers, and reported by him with illustrations in *Le Progrès Médical* for July 6th. The patient was a man, aged 31, who dated the development of his deformity from a severe accident while tree-felling in his twenty-fourth year. He was confined to his bed for six months, and when he got up he found that his head was increased enormously in size, and that his back was humped. He was admitted into the Hôtel Dieu in Angers for slight bronchitis last February. He then stood 5 ft. 1 in., had an enormous head sunk between his high shoulders, and projected forward by the curvature of the spine, which was uniformly kyphotic from the vertebra prominens to the sacrum. His limbs were short and large. His face suggested that of an animal but was not without intelligence, and he spoke distinctly in a deep hoarse voice, though the tongue and lips were much enlarged. There was no hypertrophy of the thyroid. He complained most of stiffness and discomfort in the back, and these symptoms were considerably relieved by suspension.—*British Medical Journal.*

A Warning for the Bathing Season.—Experience forbids us to imagine that the bathing season can come and go without exacting its never-failing tribute of human life. Among the numerous causes of accidental drowing it may be instructive to consider some of those which are mainly or entirely personal, and so far preventable. Chief among these, we need hardly say, is cramp. To a large extent this is practically identical with fatigue, for it is not the fresh and vigorous muscle which most readily passes into spasm. It is that which is wearied with over-action, in which effete products are in excess, nutrition consequently impaired, all molecular changes languid; where, finally, the movement of contraction, once initiated, gives way but slowly and tends to linger and become tetanic. The numbing influence of cold is another well-known obstacle to muscular activity and for this reason it is not as a rule advisable to remain more than a few minutes in the water. Malnutrition of muscles is a factor which ought not to be forgotten. It supplies a reason why bathing very soon after a meal is not advisable, much of the blood required for mus-

cular exertion being then diverted to the digestive organs. So likewise must it impose a check upon the rashness of those, adult and youth alike, who after a period of town life, with little physical exercise, find themselves at the coast, and insist on trying whether with jaded energies they cannot safely accomplish feats of swimming. Yet one more caution. This is that every bather should know the state of tide, the currents, and the ground. Unless he is thus careful, he may find himself at any time confronted by unexpected dangers, the end of which it is impossible to foresee. It may seem ridiculous to urge that only those who really can swim should bathe in deep water, yet neglect of even this precaution is by no means uncommon.—*Lancet.*

Treatment of the Diarrhœa of Phthisis.—The diarrhœa which occurs in phthisis, as the result of tuberculous ulceration of the small—and often of the large—intestine, is a condition which acts as a rapid drain on the patient, and is also one of the most intractable to treat. It is always to be stopped if possible. In many cases opium with logwood extract seems to be beneficial, but in others no drug seems to be of any avail. The futility of treatment probably depends on the fact that no drug capable of being taken internally acts for a sufficient length of time on the foci of chronic ulceration. There are many factors which aid in producing the diarrhœa; the presence of the ulcers tends to set up a condition of surrounding chronic congestion and of irritable weakness in the musculature of the gut, and there is a watery exudation from the open sores. Some of the drugs administered in tuberculous ulceration of the intestine, seem to act by affecting and regulating the muscles of peristalsis, and by diminishing the chronic congestion of the mucous membrane. Debove recommended silicate of magnesium, an insoluble powder which seems to be beneficial by acting as a mechanical protective to the ulcers, and by diminishing (or absorbing) the watery secretion. Polyàk administered it in a daily dose of 200 grammes (about 7 ounces), mixed with half a litre (under a pint) of milk. The dose may be increased to between 400 and 600 grammes. Beneficial results were experienced after two days, but on the fifth to the seventh day of treatment heavy pains were experienced in the abdomen. These were ascribed to the irritation caused by concretions of the insoluble powder; a conclusion which seems to contra-indicate the treatment. Polyàk says, that it does not cause healing of the ulcers, and, in his hands, the treatment by lactic acid has proved more successful. Tuberculous ulceration of the larynx has been said to be cured by scraping the ulcer and applying lactic acid; and, though not always curative, there seems no doubt that the application of lactic acid is beneficial in laryngeal phthisis. For intestinal ulceration in phthisis, Polyàk begins with a daily dose of lactic acid of about 20 minims, dissolved in 4 ounces of water; after two days the dose is increased to 40 and 50 minims daily. Under this treatment the diarrhœa and abdominal pain cease in three days, and in four or five days the motions begin to assume a normal appearance. The acid must be continued for a long time, but after the cessation of the diarrhœa the daily dose may be reduced to 10 or 20 minims. At first there is no effect on the appetite. The tuberculous ulcers may be cured by this treatment; but no pathological evidence is adduced to corroborate this statement.—*Brit. Med. Journal.*

Phthisis in Armies.—According to Dr. R. Schmidt of Munich, who has collected a mass of material connected with the statistics of phthisis, the number of soldiers who suffer from phthisis in the German army (excluding Saxony and Bavaria) is 3 per 1000, and the number of deaths from this cause 0·9 per 1000. In the Austrian army the numbers per 1000 are 6·4 and 2·2 respectively; in the Italian army 4·3 and 2·9. In the Russian and French armies only the number of fatal cases is given, which is 12·5 per 1000 in the former and 2·2 per 1000 in the latter case. In the English army, which on account of long service and foreign service is not to be compared

with continental armies, the number of cases per 1000 is 11·8 and and the number of deaths 6·2. At first sight, one would expect that, as only men who are found on examination to be healthy are taken as recruits, the number of cases of phthisis ought to be very low. As a matter of fact, however, it is, in Bavaria at least, higher than amongst civilians of similar age and sex. The reason of this remarkable circumstance is discussed in an article in the *Koenigsberger Zeitung*. How important a factor direct contagion is the experiments of Cornet show, as well as the fact that hospital attendants fall easy victims to the disease; but Dr. Schmidt believes that the most frequent explanation is that recruits come into the army with a latent tendency to phthisis, and that the conditions under which they are then suddenly placed cause a more or less rapid development of the disease. The knapsack, for instance, appears to have a decidedly prejudicial effect, as is shown by the fact that those regiments which do not wear it present a lower phthisis mortality than those in which it is worn. Again, the diet and the whole regimen of the soldier are, according to Dr. Schmidt, calculated to lessen the power of resistance to the development of phthisis; consequently it is not to be wondered at that a larger proportion of soldiers than of civilians develop it.—*Lancet*.

Examination of the Gastric Secretion.—Dr. Jürgensen of Copenhagen has published a contribution to the question discussed by Ewald of Berlin and Riegel of Breslau, as to whether it is better in the cases of disordered digestion to examine the contents of the stomach after breakfast or after dinner. His experiments on twenty-one patients after both meals showed that the difference of the results obtained is neither so clear nor so important as to enable one to conclude that either of the two meals is distinctly the better for experimental purposes. He prefers to conduct the examination after breakfast, but merely because it is more convenient both for physician and patient. Dr. Jürgensen's deductions from his own experiments have been criticised in a German medical journal, which holds that they point to more reliable results being given after dinner than after breakfast. He found in sixteen experiments in twelve cases of excessive acidity (three being cases of gastric ulcer) that the total acidity after dinner increased in fourteen cases, and decreased in only two, in both of which there was rather an excess of aciditey after breakfast. In three cases there was absence of acidity and nervousness after breakfast, and total absence of acidity after dinner. In eight experiments in six cases of chronic gastritis the acidity was twice absent, three times decreased and twice very slightly increased after dinner, while after breakfast there was less than the normal acidity, and in one case there was absence of acidity after both meals. These experiments seem to prove that in nineteen cases dinner brought into prominence the morbid functions of the stomach, while breakfast showed this result only four times. *Lancet*.

A New Symptom of Pericarditis.—In some cases the diagnosis of effusion into the pericardium is difficult; and a symptom, first noted by Bamberger, is said to be constantly present, and to aid materially in arriving at a correct conclusion. Puis, in the *Weiner medicinische Wochenschrift* (quoted in the *British Med. Journ.*, July 6, 1889), early in this year, has again attracted attention to the point. By percussion of the patient in a sitting position, or when lying on the right side, there is a muffled tympanitic resonance or diminished resonance over the left side of the thorax behind, extending downward from the angle of the scapula; and at the place of greatest loss of resonance there is distinct bronchial breathing and bronchophony, with increased vocal fremitus. If the patient is made to bend forward, a portion of the dulness completely disappears, another portion becomes tympanitic, and no bronchial breathing is heard. This change is more marked still if the patient assumes the knee-elbow position. The physicial signs observed are ascribed to compression of the lower lobe of the left lung by the

fluid in the pericardium, and is found chiefly in young adults with chests which are elongated or narrowed antero-posteriorly. The presence of pneumonia or pleuritis is contra-indicated by the alteration of the physical signs when the position of the patient is changed.—*Med. News.*

Diabetes Mellitus Following Extirpation of the Pancreas.—Mering and Minkowski (*Centralblatt f. Klin. Med.*) have found that extirpation of the pancreas in the dog is invariably followed by diabetes mellitus. Sugar appears in the urine shortly after the operation and is constantly to be found till the death of the animal, which usually occurs some weeks after. In addition to the sugar in the urine, the other well known symptoms of the disease also make their appearance; polyuria, excessive thirst and emaciation in spite of abundant nourishment. The urine was also found to contain acetone, the blood sugar was also found to be increased in quantity. The normal glycogen of the liver and muscles was found absent in a dog that had been operated on four weeks previously and after being fed with a rich nitrogenoas diet. As care was taken not to wound the solar ganglion during the operations, the authors conclude that the diabetes was due to the extirpation of the pancreas.—*Montreal Medical Journal.*

Thrombosis of the Cavernous Sinus.—At a recent meeting of the Royal and Imperial Society of Physicians at Vienna, Professor Nothnagel related a case of which the diagnosis was thrombosis of the cavernous sinus (*Revue Générale de Clinique et de Thérapeutique*, No. 26). The patient, a female aged seventy, three years ago suffered from severe pain on the right side of the head, resembling neuralgia of the fifth nerve. Some time later there occurred diplopia and strabismus, which afterwards was succeeded by immobility of the eyeball. There is now closure of the right eye, œdema of the upper eyelid and right cheek, increase of temperature of that side of the face, and attacks of tic douloureux; anæsthesia involving the same region and also the tongue, conjunctiva, and cornea; vascular injection of the conjunctiva; intense keratitis and iritis. These symptoms referable to involvement of the fifth nerve and all the ocular nerves suggested a localised lesion at the base of the brain, and were most likely due to cavernous thrombosis, caused probably by localised chronic meningitis rather than a tumour.—*Lancet.*

Methacetin—A New Antipyretic.—Dr. Franz Mahnert, assistant to Prof. von Jaksch, describes, in the *Pharmaceutische Post* for April 7, 1889, the most recent addition to our rapidly growing list of synthetic medicinal compounds. This time it is an antipyretic, and in composition might be described under the name of paraacetanisidin, its formula being

$$C^6H^4 \begin{cases} OCH^3 \\ NH.C^2H^3O. \end{cases}$$

In doses of from two to three grains, given to children, it exerts a marked antithermic action, the reduction of the temperature being gradually produced, remaining for several hours at the lowest point, and then gradually increasing. Frequently marked perspiration is produced by its use within an hour after its administration.—*Med. Record.*

Prognosis of Cirrhosis of the Liver.—Professor Semmola of Naples, in a clinical lecture on Cirrhosis published in "Il Progresso Medico," maintains that the prognosis of the disease depends entirely on the quantity of urea excreted during twenty-four hours, as he has proved to his own entire satisfaction in seven cases. He teaches that increase in the secretion allows a much more favorable prognosis than a decrease. The quantity of urea secreted corresponds, according to him, with the functional activity of the hepatic cells; so that the extent of nitrogenous metabolism is proportionate to the number of normally acting cells. For the treatment of the disease Professor Semmola recommends an exclusive milk diet, which must be systematically and regularly administered.—*Lancet.*

Medical Items.

The *Weekly Medical Review* comes to us in an enlarged and improved condition.

Dr. W. P. Manton, of Detroit, has been appointed consulting Gynecologist to the Eastern Michigan Asylum.

The new lecturer on Pathology just appointed at the University of Bologna—the oldest University in the world—is a woman —D. Giuseppina Cattani.

Dr. George Purviance, of the Marine Hospital of Baltimore, has been transferred to Philadelphia and Dr. Wm. H. H. Hutton, of Mobile, Ala., will succeed him.

Dr. T. W. Clark, of this city, has opened an office at 1407 New York Avenue, Washington, and will spend each afternoon thete for consultation in nervous diseases.

The State Medical Society of Pennsylvania has postponed its annual meeting until June, 1890. It will be remembered that the meeting of this year was prevented by the Pennsylvania floods.

The sixty-second Congress of German Physicians and Naturalists meets at Heidelberg from the 17th to the 23d of September. The programme is an exceptionally attractive one.

At Heywood, a horse dealer named Fletcher, was fined £10 and costs, or a month's imprisonment, for having prepared as human food, the carcass of a cow which had died from tuberculosis.

Professor von Nägeli has resigned his Professorship of the University of Munich. He has held it for thirty-two years, and the great majority of the younger German botanists were pupils of his.

In and near the village of Coita, near Dresden, it is stated that about 120 persons fell seriously ill some weeks ago after eating beef taken from a diseased cow. Several of them died after great suffering.

The *Breslauer ärztliche Zeitschrift* came to an untimely end on June 29, it having been found impossible to secure the services of an editor of a "commanding personality" to supply the place of the late Prof Gscheidlen, who founded the journal and gave to it the high position it held in German medical literature during the ten years of its existence.

The Brooklyn Throat Hospital, a new institution incorporated a few months ago,was formally opened on Wednesday, June 19. There were a great many prominent physicians present. After thoroughly inspecting the hospital, which is located on the corner of Bedford Ave. and Fifth St., the guests adjourned to Hotel Bosworth, where dinner was served followed by speeches.

Dr. Truzzi, of Milan, has studied the statistics of a lying-in hospital in that city from 1852 till last year, with a view to ascertain the truth of certain statements respecting first labours comparatively late in life. Most of these statements, familiar to readers of obstetric manuals, were confirmed The rate of morbidity was found much higher than in younger primiparæ. This well-known fact was ascertained, so far as Dr. Trussi's cases were concerned, to be due in the majority of cases to renal disease. Puerperal convulsions were found to be more frequent than in younger subjects. A slight degree of contraction of the pelvis caused far more trouble than in more youthful cases. The period of dilatation of the os was long; lacerations of soft parts frequent. Instrumental labour was very often necessitated, especeialiy the forceps, which had frequently to be applied to remedy simple uterine inertia.

The American Association of Obstetricians and Gynecologists will hold its next annual meeting at the Burnet House, Cincinnati, O., in the rooms lately occupied by the Military Order of the Loyal Legion, on Tuesday, Wednesday and Thursday, September 17, 18 and 19, 1889. No formal invitations will be issued to non-members, but the Association hereby extends a cordial invitation to such members of the profession wherever residents as may feel interested, to attend the meeting and participate in the proceedings. The papers and discussions will embrace subjects pertaining to obstetrics, gynecology and abdominal surgery.

By order of the President,

WM. WARREN POTTER, *Secretary*

Original Articles

A PARTIAL CLINICAL STUDY OF CREOSOTE.*

BY A. ATKINSON, M. D.,
OF BALTIMORE.

This article kreasotum, crèosote, kreosot, derives its title from its well-known efficacy in preserving animal matter from putrifaction, from kreos, flesh and sodzein, to save or to preserve from. Like most disinfectants creosote is highly offensive to the sense of smell, even excelling in that particular the putrid condition it is instrumental in preventing. It is an ingredient of the crude or common wood vinegar, to which it imparts, even by the one per cent. in which it enters into this fluid, the peculiar empyreumatic or the pyroligneous smell which we detect in fluids used in large meat preserving houses and which in some persons engenders much disgust to the pickle-cured meats. Creosote enters, too, into the smoke from the green wood with which bacon is smoked, whether that wood be green oak, green hickory or *green* pine—the latter being used by persons who are anxious to impart quickly the bacon color and the pyroligneous flavor to their bacon so as to rush it into market in the early spring. Formerly this trick of trade was much indulged in. In certain conditions of the atmosphere, as in upper Texas and in parts of Colorado, as well as in the highest mountains of Asia, meat is cured simply by cutting it into fairly thin slices and hanging it up in the trees for a certain time, without even adding salt. This process with hunters is called "jerking," and in parts of Asia to this day the funeral services often consist of arranging the dead body well up in the tops of trees on the mountain top or of hanging it from the sides of precipices, so as to protect it from the depredations of animals. Too much smoking of meat is a disadvantage, rendering it too dark, serving to hatch the eggs of the fly and to hasten any likelihood of spoiling, besides imparting too dark a color to the meat.

To obtain any particle of creosote from the crude wood or pyroligneous acid it is necessary to treat the fluid by saturating with sulphate of sodium at 158° F. Skim off the supernatent layer. This latter is then acted on by the carbonate of sodium and then purified.

Creosote is a compound of several substance; and it has not been an easy matter to separate them. In 1867 it was found that a substance termed guaiacol, consisting of seven parts of carbon, eight of hydrogen and only two of oxygen and another analogous substance formed of eight parts of carbon, ten parts of hydrogen, with two parts of oxygen, which was called creosol, entered into its formation.

Both these substances have like properties with creosote, and very lately the former (guaiacol) has been recommended as an efficacious agent in cough. The guaiacol boils at 392° F., while the creosol requires a temperature of 460° to raise it to the boiling point. Other compounds have been found to exist in creosote, such as cresol, xylenol and phenol, all consisting of carbon, hydogen and oxygen. The guaiacol has been given in capsules and in solution with some tonic or aromatic tincture. The writer has never yet been able so to disguise or even to ameliorate its horrid taste enough to induce patients to take more than one vial full of the mixture, and even when taken by great persuasion and almost under protest it has done no more than creosote to help the cough. It is much easier to disguise the taste of creosote than that of guaiacol. The creosote now can be had in capsules and thus may be readily administered, and even in powder its taste may be much improved by adding a little of the oil of anise and of tea-berry.

Creosote is one of the products of the dry distillation of wood, coming, it is claimed, rather from the ligneous fibres surrounding the wood cells and not in any amount from the cellulose particles of the tree. Certain woods contain it in greater per cent. than others, as the beech for instance yielding as much as 25 per cent. by complete distillation, and it is the beechwood creosote that we

*Read before the Baltimore Medical Association, May 27, 1889.

commonly find kept in the shops for prescription use. That sold as Morson's pure creosote is the variety usually prescribed. The tar of the wood is first obtained by slow, smothered combustion in earth pits, just as in making pine tar, and this beechwood tar is subjected to repeated distillation if it is desired to obtain absolutely pure creosote. There is said to be considerable waste in preparing the pure article for medicinal use, the process being suspended as soon as half the tar yields its creosote and when vapors begin to form showing the burning of impure parafine. There then appears a heavy and a light layer of oily material separated by a watery layer which has an acid reaction. The light oil is called eupion and is left out in the search for creosote, while the heavier oil is treated with a solution of carbonate of sodium in a concentrated state and the resulting oily fluid is then distilled. This is then treated with a solution of caustic potassa so as to dissolve the creosote, thereby separating it from the useless eupion. This mixture of dissolved creosote is then saturated with sulphuric acid so as to free it from the potassa and the impure creosote which falls to the bottom of the flask is washed and rectified by heat of about 395° F.

As thus obtained, creosote will turn to a brown on being heated in the air and requires further action of caustic potassa and sulphuric acid for its perfection.

Creosote boils at about 397° F. It is a colorless, oily liquid, turning a slightly yellowish color when long exposed to light. It has a caustic taste and a smoky smell and volatilizes on exposure without any residue. Cold water dissolves it in the proportion of one to eighty parts and warm water about one to twenty or twenty-five parts. It is freely soluble in alcohol, ether and in the oils. Creosote burns with a whitish sooty flame. Plants fade and wither from the action of weak solutions of the drug and all insects are destroyed by it. In large quantities it causes, in animals, inflammation of the stomach, severe pains in that organ, vomiting, labored breathing, some intoxication and finally convulsions and death. When injected into the veins in sufficient quantity it produces death by arresting the action of the heart, possibly from its coagulating influence on the blood. When applied to the skin in a pure state it corrugates the surface, coagulating the albumen and causes a burning sensation, even to the extent of causing ulceration, like, in this particular, its congener carbolic acid. A single drop taken on the tongue will cause burning of the mucous membrane and of the œsophagus. In large medicinal doses, long continued, it is apt to produce giddiness and dyspnœa, but this effect is a very remote one, not likely at all to be seen in general treatment of disease. Excessive doses of the drug may give rise to intestinal pains and to bloody steols. When long continued, say for two weeks, in the proportion of one to two drops three times a day, the urine acquires a black sooty color and the fresh urine gives the smell of the drug to a slight extent, but does not show the presence of blood. Strangury has never happened in my using creosote, though from its analogy to turpentine, it is not impossible it might occur.

In sea-sickness it ought to act a good part, though it would be an unwelcome intruder into a ship full of refined passengers, but especially would it come well into use in cancerous affections of the stomach when the discharges keep the patient nauseated and when there is generally greater or less hœmorrhage throughout the later stages of the affection. In yeasty dyspepsia it ought to prove a useful adjunct, with or without lime water and pepsin in some of its many forms, and in that form of possible disease, trichinosis, where large numbers of the young of the worm are resident in the stomach and bowels, we should look for the best results, especially as in this loathsome disease nothing has so far been discovered which has reached the trouble in any way. Here, at least, we would hope to prevent the spread of the disease beyond the intestinal tract before the worms reached the bodies of the muscles. This could be done by using Parke, Davis & Co.'s capsules of beechwood creosote, ready prepared.

The hæmorrhage arresting power of this drug led to its use in losses from the stomach, lungs and bowels, and its anti-nauseant property enabled the stomach to bear in smaller quantity than would serve for any other agent to accomplish an equal and like effect. Some years ago it was claimed that creosote lessened excessive bronchial secretions. With that view its use began in chronic bronchitis and in consumption, but after a while it fell into disuse. Just so it was thought to lessen excessive secretions generally and was employed in both forms of diabetes. Certain it is that inhalations of creosote will lessen the bronchial secretions, thus lessening the great distress in early morning, of most phthisical patients. Its smell in an inhalant fluid may be much lessened by the addition of tincture or fluid extract of eucalyptus and of the tincture of benzoin, say one dram of each to half ounce of water, to which are added two drops of pure creosote, thus making the inhalant fluid contain about four drops of creosote to the ounce. In a case which has been under my care for several months, improvement was very marked so long as the creosote was kept up, being given at first to allay the intense nausea which persisted before she came to this city. This was relcived by the creosote in lime water to which a little wine of pepsin was added now and then. This patient had taken cod-liver oil and its various preparations, until the stomach absolutely refused to tolerate it any longer. Daily evening pyrexia appeared almost parching the patient up and she was as soon as stomach would retain anything, put on quinia and antipyrin, equal parts in capsules, with one drop of Morson's pure creosote to each dose. In a few days the temperature ceased to rise and the antipyretics were suspended with instructions to watch that point well and to resume them on first approach of elevation of the bodily heat. Wishing to continue and obtain all the good effects of the creosote a prescription was given ordering one oz. of Tyree's comp. powder of the hypophosphites with forty-eight drops of creosote and six drops, of the oil of anise and of tea-berry each. The addition of the oils much abated the smell and taste of the creosote and the powder was sometimes taken in syrup and sometimes put in the form of large capsules. Under this treatment the patient rarely had nausea, the cough greatly lessened, the normal temperature was maintained and night sweats ceased and she gained weight and strength. We all know what wonders creosote alone with oil of cloves or with tincture opii will accomplish in affording relief to toothache, even with such cases as to induce us to think there can be no comfort save from the forcible application of cold steel, the creosote here searing the end of the diseased nerve, rendering it insensible to pain for awhile.

Creosote continued for six days is said to destroy tapeworm, probably by intoxicating as well as by its coagulating action on the albuminous body of the worm. A good dose of turpentine and castor-oil completing its removal in its entirety from the body.

I once saw, what was then the surprising action of soot on the gravid uterus. A lady had engaged me to wait on her early in June. About the 1st of April I was hurriedly called to her, some four miles in the country. On arriving I found the child born. On asking the old colored nurse on the place how it happened that the lady was confined sooner than she expected she informed me that her "missis" had cramps from eating cabbage, and that she, the old woman, gave her soot tea. In two hours the lady was delivered of a seven months child. Inquiry soon taught me that it was, in the country, no uncommon thing for the negro midwives to resort to a tea made from a handful of soot taken from the chimney of their cabins to arrest hœmorrhage after labor. Lampblack is of the same nature and " contains some oil which is separated by being heated to redness in a close vessel," says Dr. Peyre Porcher in his work on the resources of Southern fields and forests.

We find a change to the Southern pine

forests in winter a great relief to persons of delicate lungs, as at Thomasville, Ga., as well from the mildness of the climate as from the terebinthinante nature of the vast forests of yellow pine which abound in that section. Here, too, we have the diffused though gentle and continuous action of creosote or its kindreds on the lining of the delicate lungs.

This was thought, years ago, to be the action of the piny woods in lower Pennsylvania, but the southern forests contain the yellow pine from which the true pine tar is prepared, and here it is in middle North Carolina, far enough from tidewater to avoid the malaria, and in southern and middle Georgia and Virginia that we find the greatest amount of good derived from the pine forest exhalations. Even lately a turpentine well has been discovered in Laurens Co., Ga.

Tar water contains a very slight proportion of creosote, and is especially useful in cleansing the scalp and imparting vigor to the falling hair. This is notably seen in the good effects it shows in restoring the hair after attacks of typhoid fever. I recall now, a physician in large country practice, who claimed to have cured himself of consumption by drinking, three times a day, whiskey in which fat lightwood shavings were steeped. In Asiatic cholera, where vomiting is even more distressing than the cramps and diarrhœa, I would expect the full use of creosote to exert the happiest effect. Everything else here has been used and failed. I have treated many cases of this disease and believe now, if I had studied experimentally beforehand, the theraphy of creosote, I would have met with greater success. Just so in yellow fever, where the death rate has been so satisfactorily lowered, I believe creosote will do more good than any other agent, serving to destroy the germs of the disease in the stomach and bowels, to allay the nausea which prevents our giving fever remedies; and more than that, it would most likely destroy the germs of the disease when we are called in the beginning of a case and thus shorten the attack. It is a matter of surprise why creosote has not been tried in typhoid fever just as carbolic acid has been with quinine, in the hope of removing the cause, if due to collection of disease-producing germs in the stomach and bowels. Internally we use creosote in doses of one-half to two drops every 2, 3 or 4 hours, as may be required. In relieving nausea it is better to give one drop in a tablespoonful of lime water or with the same amount of infusion of capsicum, and await the good effects than to persist in its use too frequently. Creosote is disinfectant and is one of our best antiseptics. It is also hæmostatic from its power of coagulating albumen, which we see in its action on liquor sanguinis, on the whey of milk, and on albuminous urine, as well as on the beef preparations, of which there are so many on the market. We see this action of creosote on the various fluids before you, each vial being labelled in plain English; thus you see the decided action of the creosote on the saliva; again you have the result of the action of creosote on albuminous urine, which I believe has not been noticed before, at least I have never seen it in print or heard of it before as a test for albumen in urine. In another vial you see the action of the creosote on the albuminous fluid drawn from a patient with Bright's disease, and again you see its action on a 20-grain solution of nitrate of silver. The best beef preparations show most albumen and show moreover that the albumen has not been beforehand coagulated by too much heat, leaving for the patient only the creotine salts suspended in the fluid. You see here a sample of beef fluid which has not been killed by heat and whose albumen was as free to nourish the patient as it was free in the rich juices of the muscle from which it was expressed. You see, too, how from its taste and its smell it has been kept sweet without the aid of injurious chemicals.

You see how, from its power of coagulating albumen, creosote is capable of arresting hæmorrhage from the stomach, which incites and keeps up such persistent nausea and with some weak alkaline solution it is often our great dependence in the sick stomach of pregnancy; indeed a drop of creosote in a tablespoon-

ful of lime water, or with two teaspoonsful of capsicum or of Columbo and a mustard plaster over the pit of the stomach will surpass often all other much lauded agents, such as oxalate of cerium, bismuth, pepsin, ingluvin, calomel or the dilute hydrocyanic acid ; all these things may very reasonably be depended on and do very well for a change, but the sine qua non now is the creosote with the capsicum or columbo infusion, with the great help of a mustard plaster made up by preference with the white of an egg.

As an external application we use creosote as a stimulant, more or less active, according to the amount needed, to indolent ulcers and burns and to offensive suppurating sores, to stimulate the inactive circulation in certain forms of chronic eczema, as a gentle wash in discharging ears, as a mild wash in salivated gums, and as an ointment on itching surfaces, and chronic eczemas and chronic indolent ulcers in the proportion of 10 to 30 qtts. to the ounce of simple cerate, of vasaline, of cold cream, of Hebra's ointment and of the benzoated oxide of zinc ointment. A few drops of some essential oil or of citronella, burgamot, lemon or anise, or of any two combined, will naturally lessen its disagreeable odor. Indeed, in chronic eczema of children I know no better application than the ointment of the oxide of zinc or Hebra's ointment with 5 to 10 drops of creosote nicely flavored up.

This supplies the much needed substitute for the unguentum picis without its ugly brown color, which mother's object to so much. When desirable, a wash of creosote may be applied on retiring and the body nicely washed off next morning, so as to leave but little trace of the drug behind, and the night clothes bearing the unpleasantness may be washed at once or hung out to air, so as not to scent the house.

The smell of creosote forms the great barier to its use, thus resembling sulphur, which, as a very intelligent man once remarked, would be worth a guinea a pound but for its suspicious smell. A pretty strong wash of creosote applied to an oozing surface will, like chloroform water, very promptly arrest the flow by closing up the capillary mouths. If applied in full strength to the skin or to a mucous membrane it causes gentle cauterization to the extent merely of searing the skin or whitening the mucous surface, proving also slightly anæsthetic to the part. As a wash creosote is generally used in the dilution say of 5 drops to the oz. of water, and we can, to advantage use it with black wash in phagedenic sores, say, 4 to 10 drops to the oz., according to the offensive nature of the sore and to the degree of stimulation we desire to accomplish. Still while we have creosote to fulfill many good indications for us, we are not to suppose it incapable of harm as well, and it behooves us to use it always intelligently, until we know its full power for good or evil in the treatment of disease.

INSANITY AND ALLIED AFFECTIONS.

BY ALEXANDER L. HODGDON, M. D.,
OF BALTIMORE.

GRAND HYSTERIA (HISTERO-EPILESY, SO CALLED.)

Definition—Grand Hysteria is an aggravated form of Hysteria which is deserving of a separate classification and consideration apart from ordinary hysteria. It is generally met with in unmarried hysterical women about the age of puberty and upwards, and is characterized by semi-tonic convulsions with opisthotons or, globus hystericus and sometimes absence. I think the application of the term hystero-epilepsy to this disease should meet with strong opposition. There has been a great deal said among the profession as to the inappropriateness of the term typho-malarial fever when applied to a case in which both typhoid and malarial fever are present. What objection there can be to the use of such a term for convenience I cannot see, *i. e.* in the description of a case in which either the typhoid fever or the malarial fever is a complicating element, and not in the sense of considering typho-mala-

rial fever a hybrid disease. But it is altogether a different matter in regard to the term hystero-epilepsy, for the reason that the term as generally used is applied to the disease grand-hysteria in which there is an hysterical element but not a shadow of an epileptic one. If the term were used to designate cases of hysteria complicated by epilepsy then it would be a very convenient addition to our nomenclature.

Causes—Hysteria seldom if ever occurs in men; it is eminently a disease of women. Why it is so it is hard to say, unless it be that there is an instability of the nervous system in women which specially predisposes to hysteria.

Symptoms—An attack of grand-hysteria may develop suddenly or may be preceded by prodromata. No matter what position the patient be in at the onset of the paroxysm, unless she be supported she will fall heavily, should the attack be a severe one. After the complete loss of consciousness in some cases and only partial abolition in others, the convulsive stage proper begins, the limbs perform various movements and the body is arched into the position of opisthotonos; the mouth may participate in the convulsion and the eyeballs can be seen rolling from side to side under their lids. The breathing is not loud, and the contents of the mouth may be wounded by the teeth. The patient may pass from one convulsion into another with a very short intermission and then may not be troubled for days. One interesting point about the grand-hysteriacs is the state of good health enjoyed by them between the paroxysms. It has been said that grand-hysteria does not exist among the African race. Most of my typical cases have been found amongst that race. An interesting symptom which I have noticed in one case was that the patient always had seen a white snake in front of her eyes, which later on became a black snake. During the attack a movement may take place in the throat resembling what you might imagine the movement of her throat would be in case she had swallowed a ball and was trying her best to eject it. At the same time tears trickle down the cheeks. After consciousness is restored the patient is apt to feel as well as ever until the next paroxysm manifests itself.

An individual afflicted with grand-hysteria is sometimes very strong, it taking many men at times to hold a young girl in order to keep her from biting herself. Sometimes they will simulate hydrophobia, barking the same as a dog and trying to bite themselves. I have known a case where the patient would run till exhausted and then sink down upon the ground. Cases on the borderland of hystero-mania may hear voices whispering to them, and it will be almost impossible for you to elicit from them what the supposed voices were talking about. There may be a dull expression of countenance present in the person afflicted with grand-hysteria.

DIAGNOSIS.

GRAND-HYSTERIA.	EPILEPSY.
Not apt to be a cry as attack comes on and patient may fall.	Apt to be a cry, and patient is apt to fall.
Contents of mouth may be wounded.	Contents of mouth apt to be wounded.
Opisthotonos a marked feature of attack, and globus hystericus may be present.	Opisthotonos may be present.
Loss of consciousness may take place.	Loss of consciousness always takes place
Slow convulsive movements as a rule.	Rapid convulsive movements as a rule.
Tendency to bark as a dog present.	No such tendency present.
Bromides administered have no specific action.	Bromides have specific action.
Application of strong faradic current or inhalation of aqua ammonia will generally terminate attack.	
After attack patient not apt to want to sleep.	Patient generally wishes to sleep after attack.
Patient apt to be readily hypnotizable.	
Patient may try to bite her hands.	

The attack of grand-hysteria may keep up for some time, whereas in epilepsy the fit is not apt to last long. The sex of the individual must be taken into consideration also, in making the diagnosis, also if a female, whether married or single. The diagnosis from hystero-mania must rest upon whether there is any suicidal intent and marked delusions. From hydrophobia by the faradic current. A paroxysm of grand-hysteria generally yields to the faradic current or to the inhalation of aqua ammonia. I should not be surprised if a great many of the cases of hydrophobia we hear so much of from all over the country were due to hysterical women. One case of grand-hysteria which I attended might have been pronounced on first impulse to be a genuine case of hydrophobia. The girl had a history of having been bitten by a dog. She would imitate the bark of a dog and would try to bite herself.

Prognosis—The prognosis under treatment may be favorable if the disease has not existed too long. If it has existed for a long time the prognosis is unfavorable.

Treatment—Under this heading there is a great deal to be said. It will be well I think, primarily, to take up the treatment to be pursued during the paroxysm. A great many writers favor ovarian pressure as a means of terminating the fit, but in the experience of the author it is one of the least reliable of methods at our disposal. The most reliable in my experience has been the use of the faradic current, and the next most efficacious method the inhalation of strong aqua ammonia. The method I have adopted in using the faradic current has been to place a *well dampened* sponge in each of the patient's hands, and then rapidly draw out the cylinder of the battery. It is to me one of the most gratifying points in therapeutics to notice the immediate cessation of the fit. Mild currents will, I think, in most cases, be found useless. I do not believe there can be found a single case of grand-hysterical convulsion in which the paroxysm will not be broken up immediately if this method be thoroughly applied. The inhalation of aqua ammonia is another means of treatment which I think few, if any, will be able to resist.

*Dr. Chas. K. Mills considers nitrate of amyl" of value in averting grave hysterical attacks, convulsions, trance, ecstasy, pseudo-coma, mania, etc. It is frequently used with marked success. Its action was studied on a vast scale at La Salpêtrière. The convulsions usually stop almost immediately after one, two or three inhalations. It is to be preferred to inhalations of chloroform or ether."

The same writer also says: "Nitro-glycerine can be used in the treatment of the hystero-epileptoid convulsions. Notes of a very interesting case of hystero-epilepsy, in which this remedy was successfully employed, have been furnished me by David T. Stewart, of Philadelphia. The case was one of hystero-epilepsy, with combined crises. Amyl nitrite on several occasions broke the convulsive attacks, but the patient did not completely regain consciousness. Stewart was called in during an attack, and found that the patient had been unconscious for an hour and a quarter. He gave her hypodermically three minims of a 1 per cent. solution of nitro-glycerin and another injection after an interval of about eight minutes. She became conscious within one minute after the second injection. After this she had two seizures, both of which occurred the same day, and yielded with remarkable promptness to a few minims of nitro-glycerin given by the mouth. She was put on three minims three times a day of this drug, the dose being gradually increased. Sufficient time has not elapsed to report as to the effect of the drug given during the intervals."

Ovariotomy has been recommended in this disease, the practice of which should, I think, be greatly condemned, simply because the sexual instinct has not been gratified by marriage, and that there is a possibility that this is productive in some cases of that diseased state of the nervous system known as grand-hysteria. Why should the woman be unsexed? Would any surgeon think of extirpating the stomach simply because the patient

*A System of Medicine, by American Authors.

felt some symptoms of hunger? What is the number of unsexed females to-day in the world? If the statistics were known they would be startling!

*In two clinical lectures published in the Philadelphia *Medical Times* I have given the history of two cases of hystero-epilepsy, in which Oöphorectomy was resorted to. In the first of these cases, in which clitoridectomy was also performed, nymphomania, which was a distressing symptom, was benefitted, but even this was not completely cured. The following is the patient's own statement: 'Since the removal of the ovaries I have been able to control the desire when awake, but at times in my sleep I can feel something like the orgasm taking place. My experience leads me to say that my cure (?) is not due to the absence of the ovaries, there is no diminution of the sexual feeling. There would be as much excitement of the part if the clitoris were still there. If my will gave way, I should be as bad as ever.' Her general mental and nervous condition is much the same as before the operations. She is still dominated by morbid ideas, still unable to take up any vocation which demands persistence, and still the frequent subject of hystero-epileptic seizures. The second of these cases was a young girl about seventeen years old who had never menstruated. She had epileptic or hystero-epileptic seizures for several years. An operation was performed in which the ovaries and fallopian tubes were removed. Twelve days after the operation, from which she made a good recovery, she had four convulsive seizures. She had several attacks subsequently, and then for a considerable period was exempt. She had, however, acute inflammatory rheumatism, with endocarditis and valvular trouble. About seven months after the operation she had severe convulsions, with loss of consciousness, and died about a year after the operation, having had many severe seizures during the last few weeks of her life. Under the title of castration in hysteria, the *Lancet* tells of a hysterical patient who had suffered for years from obstinate vomiting and severe ovarian pain. She became extremely weak, and finally consented to spaying as the only hope. The operation, performed under chloroform with antiseptic precautions, was a mockery, the skin only being incised. She was, however, perfectly cured of her hysterical symptoms."

The generative instinct resides in the nervous system, not in the ovaries, clitoris, penis or testicles; those are the organs by which procreation is accomplished, the species continued, and sexual gratification experienced. Without these organs there would be no procreation of the species and no sexual gratification, but still the sexual instinct would remain. There was a case cited (I think in the *Virginia Medical Monthly*), where an individual, with strong sexual attributes and who was insane, had himself castrated, which, of course, did away with his procreative power, but it is said that he experienced erections and had ejaculations of mucus from his urethra. This is probably a very rare case. Eunuchs are not competent to marry, but are said to experience the sexual instinct strongly.

In the treatment of grand-hysteria, I consider the faradic current as an excellent tonic, applied in the form of general faradism in the intervals between the paroxysms. I think it tends to give tone to the nervous system, and may produce in most patients a special psychical impression. Of all the remedies in this disease I do not believe there are any better, if as good, as the tincture of assafœtida administered by the mouth. It tends to relieve flatulence and is apparently a marked cerebral stimulant.

*Bartholow says: "It acts as a gentle stimulant to the brain, induces a feeling of well-being, increases the flow of ideas, and causes, as the author has observed in one case certainly, sufficient exhilaration of a pleasant kind to be regarded as an intoxicant."

Bromide of potassium has been recommended in this disease, and may be applicable in some cases, but in my hands it has not proven itself useful. I believe in conjunction with tincture of as-

*A System of Medicine, by American Authors.

*Therapeutics and Materia Medica.

safœtida that arsenic should be given in some form in full doses, preferably in the form of liquor sodii arseniatis, as it is probable that preparation does not irritate the stomach as much as some other preparations, and that it is very readily absorbed. Iron may be given in full doses, and I do not know of any better form in which to administer it than that of the tincture ferri chloridi. Of course the state of the bowels should be looked after, and if constipation exists, some purgative should be administered, and I do not believe a better one exists for this condition than the pil. rhei. comp.

With all of the medication, the importance of daily exercise in the open air and a good supply of nutritious food, combined with interesting occupations, should not be overlooked. I have never used hypnotism as a therapeutic agent in this disease, but in one of the cases coming under my care I used it on two occasions as an anæsthetic to aid in the extraction of various teeth, and at those times found it to be fully as potent as chloroform in its anæsthetic action.

Society Reports.

MEDICAL AND SURGICAL SOCIETY OF BALTIMORE.

STATED MEETING HELD APRIL 25TH, 1889.

The 693rd regular meeting of the Society was called to order by the president, Dr. R. W. Mansfield.

Dr. L. F. Ankrim related

A CASE OF PARTIAL PARALYSIS.

and exhibited the patient. A boy aet. 19 presented himself at the city hospital on February 1st, last, suffering from incontinence of urine and at times with loss of control of the bowel. The faradic current showed diminished contractility of the extensor muscles of the foot, while those of the leg replied somewhat better. Sensation good. Patella reflex gone. The bladder was examined with negative results. From ten to sixteen years of age he had indulged in masturbation, both with the penis and in the rectum, (using a stick in the latter.) On his back, at the junction of the lumbar and sacral regions is a spot covered with hair, about the size of a silver dollar. Pressure over this spot reveals the absence of one of the vertebral arches, probably the last lumbar.

His mother stated that the mark had been there since birth. That at his delivery she was attended by a mid-wife. That there was a slight enlargement at that point, but that no particular attention or treatment had been directed to it, and that the child was strong and robust until about 2½ years of age, at which time, the child after the usual good night's rest, suddenly lost control of its lower limbs. This occurred during the hot summer months and the night before the attack the child had become chilled. This condition continued for some weeks, when it began to improve gradually. The only medical attention the child received at that time, was injections in the bowel to overcome the constipation following the attack. The mother states that the scar over the sacrum is the result of a bed sore, but Dr. Ankrim said he thought it was, primarily, a spina bifida and its present condition was due to the conservative efforts of nature. He thought the attack at 2½ years of age was an attaek of infantile spinal paralysis, as there has been a gradual improvement since the attack until now the patient is able to do light work. He has been on tonic treatment only, since last February and there has been considerable improvement in his general condition.

Dr. Frank C. Bressler asked why is it supposed that the attack the patient had at 2½ years of age, was infantile paralysis?

Dr. L. F. Ankrim said because of the suddenness of the attack and the gradual restoration.

Dr. Frank C. Bressler said infantile paralysis is caused by an exudation around the large multipolar cells in the anterior horns of the gray matter of the cord. At the time of the manifestation

of the attack, the disease is at its worst and subsequent changes that occur are for the better. This exudation pressing upon these large cells, which are trophic as well as motor, there is always some atrophy of the muscles. The patient seemed to have perfect control of his limbs and there did not seem to be any atrophy, therefore the infantile paralysis, he thought, was negative.

Dr. S. K. Merrick then read a paper entitled

THE NASAL SEPTUM AND ITS RELATION TO DISEASES OF THE RESPIRATORY PASSAGES.

Dr. Merrick reviewed the anatomy of the nasal septum and adjacent parts and called attention to the importance of the turbinated bones and the sinuses communicating with the nasal cavity in catarrhal processes. The normal nasal septum presents smooth, even surfaces or planes to the nasal fossael and seem as a dividing wall between them, but disease may render this surface very uneven, rough or angular. One of the most frequent causes disturbing the relations of the septum is deflection, generally supposed to be traumatic, but probably much oftener congenital or hereditary. Hypertrophy of the erectile tissue on the lower part of the triangular cartilage and indeed along the entire lower part of the septum is quite common. While thickening of the vomer, as seen in the rhinoscopoic image is quite frequent. Any condition which causes narrowing of the natural or normal nasal fossael, to *that* extent interferes with free nasal breathing and by inducing a greater or less degree of mouth breathing, stands as a constant menace to the integrity of the larynx and accessory passages. An hypertrophied triangular cartilage may cause so much bulging into the nasal fossa, as to come in contact with the inferior turbinated body and by pressure excite hypertrophic changes in the latter, so that a comparatively trivial affection at first, results in almost complete stenosis of that nasal fossa. This condition of the septum is not always easy to distinguish from a deflection, without the aid the septometre, (practically a pair of callipers.) The simply deflected septum when tested by the septometre, shows no abnormal, localized thickening. The hypertrophy of the septum as well as that caused by it in the turbinated tissues, can be treated more satisfactorily by the galvano-cautery than by any other means. The cold wire snare with transfixion needles and chromic acid have their advocates, but the former is very tedious, while the latter is nothing like so accurate or tractible an agent as the galvano-cautery. The same may be said of the thickened vomer, while a slight degree of thickening of the vomer gives rise to no active symptoms, when it becomes so great as to be brought in contact with the inferior turbinated bodies, "pressure irritation" as Jarvis calls it, results and inflammatory hypertrophic changes in turn follows in the turbinated tissues and ultimately hypertrophic rhinitis and nasal stenosis.

As soon as any considerable thickening of the vomer is discovered by means of a rhinoscopic examination, the galvano-cautery should be applied. It will be necessary in some cases to operate several times.

It may be accepted as axiomatic, that any pathological condition of the septum which causes stenosis, will ultimately produce a sufficient amount of hypertrophic rhinitis, as to induce chronic hyperæmia of the larynx, by causing mouth breathing. Blows in childhood or adult life are usually assigned as ætiological factors in the production of the deflected septum. We owe much to the intelligent, ingenious and successful efforts of Dr. Wm. Chapman Jarvis, of the New York University Medical College, in tracing most cases of deflected septum to their proper ætiological source, viz: heredity. In a paper read before the American Climatological Association, May 27, 1885, Dr. Jarvis conclusively showed that the acuteness of the palatine arch, together with its elevation and the concomitant conformation of the superior maxillary bone, were indices to the amount of deflection

present in the septum. (Here Dr. Merrick illustrated his paper with a number of enlarged tracings, showing the close resemblance between the acuteness of the palatine arches of parent and child, who were equally sufferers from deflection of the nasal septum.) Deviations of the septum causing stenosis, is invariably followed by nasal catarrh and in time by laryngitis and often by bronchial catarrh. But the mischief does not stop in the larynx which is often affected before the bronchial mucous membrane, but there is abundance of evidence to show that the deflected septum stands in an ætiological relation to phthisis pulmonalis. As regards the question of the favoring conditions for the development of the bacili, we are told by Koch that pent up secretions, removal of the protective epithelium of the bronchi, abrasions, etc., are to be considered as the proper soil for the lodgement and growth of the deadly tubercular plant. Now these are exactly the conditions found in catarrhal inflammations of the nasal, laryngeal and bronchial mucuous membrane. Koch has further declared that air passing through the nose is deprived of germs as well as other irritating substances, it being at the same time moistened and warmed. Finally it may be stated as a principle, subject to few exceptions, that any case of long standing nasal catarrh associated with deviation of the septum and not coexistent with pulmonary phthisis, but antedating the latter several years or more, stands in an ætiological relation to that case of phthisis.

One of the most annoying, painful and intractible complications of deviated septum is extension of the catarrhal process into the antrum of Highmore. The following case being a case in point: On January 31, 1888, was called to see Mrs. S.; married; aet. 42. She was confined to bed with neuralgia of the right side of the face, from which she had been a sufferer for 20 years. The patient was greatly reduced in flesh, sallow and dejected to the last degree, saying she did not expect to get well, but had sent for him to gratify her friends and to ascertain whether there was any disease of the nose which the specialist could reach. On examination an ugly deviation of the triangular cartilage was found, pressing against the middle and inferior turbinated bodies, causing much hypertrophy of the latter and resulting in almost complete stenosis of the right nostril. She had a cough, bronchial catarrh and complained of fugitive pains about the chest, located, he thought, in the pleura. She was placed upon tonic treatment internally and local treatment was begun as soon as she was able to visit his office. She was under treatment for four months and in that time four operations with the galvano-cautery were done. Sprays of ten grains of borax to the ounce of water were used on alternate days to keep the nasal fossael clean. The great hypertrophy of the middle and inferior turbinated bodies encroaching upon the middle meatus had produced closure of the antrum, which had become affected with catarrhal extension, involving its lining mucous membrane. Reduction of the hypertrophies and removal of the pressure, by the removal of the angle of the deviated septum, established free nasal breathing and drainage of the antrum and the result was the cure of a case of 20 years standing, which had during all that time been treated for facial neuralgia. The bronchial catarrh cleared up long before the patient was discharged. About six months after she was discharged she visited the doctor's office and she had gained so much in flesh that he scarcely knew her. She called, she said, for nothing except to show herself, weighing 20 or 25 pounds more than when under his care and feeling perfectly well. The relation which the deviated septum in this case bore to the disease of the antrum is evident without comment.

Dr. Frank C. Breesler said he had had little experience in this line of medicine, but he thought that as many headaches were caused by nasal troubles as by any other cause. Taking the text books as a point of departure, he had not seen one true, healthy throat. He found some follicular pharyngitis in even those that are seemingly healthy. He

had a case of a young lady who had an attack of asthma every two or three months. He gave her the usual paliative treatment, but as she continued to have the attacks, he asked her to come to his office for a thorough examination. When she came he noticed an offensive breath which directed his attention to the nose. Examining the nose, he found a slight deviation of the septum and much hypertrophy of the turbinated body. In examining the septum, whenever a certain spot was touched an asthmatic seizere would be induce. He snared off the hypertrophied turbinated tissue and applied chromic acid and kept the parts clean by having the patient wash the nostrils, two or three times daily, with about one quart of warm water with enough table salt dissolved in it to give it a saline taste. This solution he instructed the patient to take into the mouth and force it up through the posterior nares, thus washing the nostrils thoroughly without the risk of forcing the solution into the eustachian tubes, and thereby causing middle ear troubles. The result in this case was the cure of the asthma. He thought perfect cleanliness was essential in all cases of catarrh, and that if these cases are not properly cleansed they become dangerous as being the cause of headaches and ear troubles. Another case of a gentleman who had suffered with asthma for eight years, who had gone the rounds of palliative treatment at the hands of a number of physicians. Dr. Bressler said he treated him in the same way for awhile, but profiting by his experience in the former case, he examined the nose and found hypertrophy of the turbinated tissues with stenosis. He operated in a similar manner as in the former case and the patient was doing so well that he sees less of him than formerly.

Dr. David Street said asthma, according to the text books, is influenced by heredity. He had supposed it was due to some peculiar irritability of the nervous system. It asthma is so frequently associated with deflection of the nasal septum and the deflection is shown to be the cause of the asthma in so many cases, it would be well for us to examine the condition of the nasal septum in all cases of asthma.

Dr. Wilmer Brinton said he had a case of a gentlemen with asthma, whom he had treated rather heroically, for about two weeks. He had not examined his nose in that time. The patient slipped off to a dispensary where they cured him in two or three sittings. It was some time after this that he learned from the patient himself what had been done. The lesson he learned in that case and that he has applied ever since, was to examine the nose of all patients suffering from asthma.

Dr. Jno. W. Chambers said as Dr. Jarvis has shown the almost constant association of the deflected septum with the highly contracted palatine arch, and as Dr. Gross says the highly contracted palatine arch is associated with syphilis, may there not be some syphilitic element in the consideration of deflections of the nasal septum? This is an interesting subject from a physiological, pathological and anatomical standpoint. The reflex causes of disease are important. We are only just beginning to understand them. There are two reflex causes of disease. One where there is an irritation of a sensory nerve, and the other where there is an irritation of a motor nerve, each producing their reflex phenomena and what may not be explained by these may be given over to micro-organisms.

Dr. S. K. Merrick said he knew of only one patient who could force water from the mouth through the nose, as described by Dr. Bressler and he thought it would be very difficult to teach patients that method of cleansing the nostrils. It has been well settled that large quantities of water should not be thrown into the pharynx through the anterior nares, because of the danger of forcing the fluid into the eustachian tubes. For this reason the douches are not so much used as formerly. He agreed with Dr. Bressler as to the necessity for cleanliness in treating catarrh and thought that this object could be attained by sprays. He did not agree with Dr. Bressler in that there were *no* healthy throats. It is true that

we have a great deal of throat trouble, especially in this city so prevalent is catarrh, that one of our eminent physicians has given it the name of "morbus baltimoriensis." But, he thought he had seen some healthy throats, that healthy people have healthy throats, and that healthy throats are quite as common as healthy eyes.

Dr. Frank C. Bressler said every accessory organ of the body can be cleansed and the best way to do it is to *wash it out.* The water should be of the proper density and temperature. His method of washing the nostrils is as follows: Take a deep inspiration and fill the lungs with air, then take a mouthful of the water, roll the tongue back, then expire and instead of swallowing the water, the force of the air coming out of the lungs will drive it up through the post-pharyngeal opening into the nostrils. By this means we know the enstachian tubes are *closed* when the water passes over them. (Dr. Bressler here demonstrated the method.)

J. Wm. Funck, M. D., Sec'y,
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Diphtheritic Paralysis.—The general impression about the prognosis of diphtheritic paralysis used to be that it was not very unfavourable. But the labours of some of the members of the medical staff of the Great Ormond-street Hospital go to show otherwise. In children the affection is by no means one on which the physician can look with a satisfied gaze. The paralysis brings in its train a fatal possibility, chiefly from three directions: heart, lungs, and larynx—the organs whose innervation is largely by the vagus and phrenic nerves, the motor fibres of which are derived from nerve cells in the anterior horns of tne spinal cord or their equivalents in the floor of the fourth ventricle. Dr. Harry Swift's pamphlet will serve to extend the knowledge of the prognosis of diphtheritic palsy on the continent of Australia. The work is constructed in excellent form, and contains many observations made by the author, whilst one of the resident medical officers at the Great Ormond-street Hospital. The mode of disappearance of the knee-jerk, as described by Dr. Swift, differs from that observed by Dr. Angel Money, who made out an increased excitability of this phenomenon prior to its final extinction. Dr. Herringham also discovered a similar excessive irritability of the deep reflexes during the period of restoration of the knee-jerk. The long absence of the knee-jerk in cases of post-diphtheritic debility unattended by actual paralysis is a fact on which Bernhard first laid proper stress. The knee-jerk is one of the most delicate indicators of the state of the nervous system, and some small muscles come, perhaps, next to it in sensitiveness—e g., the neuro-muscular apparatus of the ciliary muscle, the pupil, and the ocular muscles. Cases of complete ophthalmoplegia have been recorded as the outcome of diphtheria.—*Lancet.*

Effects of Prolonged Chloroform Anæsthesia.—Some observations made about two years ago by Dr. Ungar pointed to fatty degeneration of the heart and liver as the cause of death after repeated prolonged administration of chloroform. Further experiments on dogs have recently been made by Dr. Strassman, which appear to confirm this view. Dr. Strassman found that the first organ to be affected was the liver, then the heart, and after that other viscera. The nature of the morbid change was not a fatty degeneration, but fatty infiltration. The actual cause of death in fatal cases appeared to be the cardiac affection, as in all such a very marked degree of change was found in the heart. In non-fatal cases the morbid change was found to have disappeared in a few weeks' time. When morphia was given previously to the chloroform, less of the latter was required, and consequently the changes produced were not so considerable as when the ordinary amount was given. Animals suffering from hunger, loss of blood, &c., were especially predisposed to the morbid changes due to chloroform.—*Lancet.*

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BALTIMORE, AUGUST 10, 1889.

Editorial.

THE TREATMENT OF CHRONIC HEADACHES.—"Doctor, what is good for headaches?" is a question which pursues the physician from youth to old age, and which he is sometimes sorely puzzled to answer. In the "Transactions of the Medical Society of New York, 1889," Dr. Dana discusses briefly the nature and cure of chronic headaches. The headaches of young children are best treated with small doses of the iodide of iron or the citrate of iron and quinine. In school children advantage is obtained from removal from school, the use of tonics and change of diet. If there is marked visual trouble, glasses should be tried. In some children arsenic is beneficial.

Among adults, brain-workers require different treatment from muscle-workers. Brain-workers are benefited by nervines like antipyrin, caffein and the bromides, and by attention to diet and exercise and to the eyes. Among muscle-workers, especially women, anæmia, malaria, syphillis and rheumatic influences require attention.

For the rapid relief of the headache itself, ammonium muriate ʒss to ʒi, in wafers, is one of the best agents. The headache of neurasthenia is often cured by grains v of menthol in hot water, or by menthol grains v to x with antifebrin grains v to x. Phenacetin, also, is a good remedy. Antipyrin is often most valuable when given in small, frequent doses. The effervescent bromide or caffein mixtures contain too little of these drugs to be of much service.

Locally, aconitia in sprays or lotion; menthol, in 20 per cent. solution, on sheet lint, bound to the head; cyanide of potash applied in solution after Trusseau's method; and Rithet's tobacco and quinine snuff, are of value.

In persistent cases of headache of obscure origin, iodide of potassium may be used, or the strong galvanic current or static electricity may be tried. Such headaches may really be the result of diffuse neuritis, and will then call for treatment suitable to the underlying disease.

THE SUMMER VACATION.—That there is a great tendency towards the extinction of leisure in America is shown in many pursuits, but particularly in the medical profession. The constant struggle for existence and the endeavor to keep up with the swim, compels many a medical man past the prime of life to work continuously winter and summer, and many boast, with unpardonable pride, that they have had no rest for a number

of years. If a member of any profession can work throughout the year without rest it certainly should not be a member of the medical profession. Few men, earning their living with brain or muscle or both, fail to get the needed rest of one day in seven. Even the most irreligious individual will not deny the wisdom of resting the seventh day. But the doctor, the poor, hard worked doctor, he works week day and Sunday, has no certain rest at night, his work is never done and even in the warmest weather he hesitates as to how much holiday he should take.

In reality there is always a time in the year in every medical man's work when he can entrust his practice to a brother practitioner and spend one or two weeks away from all work or thought of work. It is folly to waste space in telling physicians what good a summer rest will bring them, who perhaps are advising this very rest to others. It is the constant grind that wears out the machine which would run for a much longer time with the proper oiling, rest and care.

Health Report.

REPORT OF THE STATE BOARD OF HEALTH.

The State Board of Health held a meeting on Wednesday, July 31st, at the residence of the secretary, Dr. C. W. Chancellor. The principal business was the consideration of the secretary's report. The unhealthy condition of the Chesapeake and Ohio Canal was discussed, and it was decided to request the committee having charge of the flood funds to contribute a portion thereof to flush the canal at various points, and, if successful in this direction, to make an appeal to the Governor for relief. A request for the appropriation of a portion of the fund to improve the sanitary condition of the canal was laid before the committee of the Corn and Flour Exchange, Board of Trade and a representative of the city, and a resolution was adopted that the funds shall not be diverted from the original purpose for the relief of the sufferers by the flood. The report of Dr. Chancellor was as follows:

In order that local authorities and the people generally may undertake, in an intelligent manner, work which shall result in the decrease of preventable diseases, it is necessary that they comprehend something of the causes and processes by which these diseases originate and are propagated. It is only within recent years that we have come to understand the processes by which fermentation and putrefaction of dead organic matter, whether animal or vegetable, takes place and produces a multiplication of living organisms of various species, causing changes in the chemical composition of these organic materials which give rise to virulent poisons, that produce serious disturbances and diseases in the human body, now classed as "Diseases dependent on Morbid poisons."

At this season of the year, with a high temperature succeeding excessively wet weather, it is important to recognize the fact that malarial or paludal influences operate mostly in places where air, water and soil have become polluted with organic impurities, whether vegetable or animal. The most common sources of sanitary trouble in the state are to be looked for in the pig-pens, slaughter-houses, cess-pools, burying grounds and polluted water supplies of the small towns which will be successively considered.

PIG-PENS.

One of the principal things which makes a pig-pen a nuisance is the feeding of pigs on garbage or house offal. It would be very much better to convert such refuse into manure, than to store it in barrels or tubs about the house to feed pigs with, and, incidentally, to produce disease. But the chief cause of the nuisance of pig-keeping in towns is that the floor and adjacent soil are never kept

clean. The straw or other litter in the pen holds together all the filth, which soon becomes a putrid mass, and continues to lie in the pen for an indefinite period, however foul it may be. The remedy for this is to pave the floor with asphalt or some material impervious to water, remove the accumulations at least once in twenty-four hours, and wash the floor thoroughly after each removal. But nothing can be done in this, nor in any other sanitary requirement, without an ample supply of water, and to secure this, would, in most instances, require in money or time, twice the value of the pig.

When we consider that the pen is usually in the immediate neighborhood of dwelling houses, we see that families must necessarily be subjected to great annoyance where pigs are kept on adjoining premises, and especially so when these are fed on household wastes or the offal from a slaughter-house. Notwithstanding it may be considered a harsh law which would prevent a poor person keeping a pig, when he believes it to be profitable to him, yet there are certain situations in which pigs ought not to be kept at all, viz: First, adjoining or near a dwelling house, for in such situation the windows cannot be opened without admitting the foul emanations of the pig sty, however well it be kept; second, immediately adjoining a public road, street or highway.

It is a frequent question asked by those who wish to conform to sanitary regulations: "At what distance from a dwelling house they may keep a pig?" This would seem to depend upon the state in which the sty is kept. If it should be kept in a filthy condition, it should be, unhesitatingly, removed at least one mile beyond the town limits; if the floor be such that the filth can be easily removed from it, and if a sufficient supply of water be at hand, and the sty be kept in such a condition as not to be a nuisance, the minimum distance which should be insisted on in all such cases is one hundred and fifty feet from any dwelling house and 50 feet from any public highway or street, and then the solid and liquid filth should be removed and buried at least once in every twenty-four hours, in order to prevent the formation of injurious gases, or at least to lessen this quantity. The paramount necessity of cleanliness and dryness in and about a pig-pen cannot be too frequently reiterated. The floor should be swept and washed clean every day, and subsequently sprinkled with fresh sawdust. There is no better absorbent, no cleaner material than this, and it is both cheap and easily obtained. The pen should also be frequently lime washed.

SLAUGHTER-HOUSES.

The position of slaugther-houses in small towns is generally such as to cause nuisance. They are generally situated within the town limits, and sometimes in thickly populated parts of the town, and the objection due to location is often doubled by bad structural condition. In addition to this, the nuisance is often increased by keeping pigs to eat up the offal, which is the system of disposing of it, and no regular method of removal is adopted for disposing of that which the pigs do not eat, which is thrown on to the manure heap and exposed to the sun and atmosphere, whereas, if the practice were to keep no pigs on the premises, but to remove the offal to a field, where it might be kept or burned, then all the offal would be removed together, as a rule of the business, and the premises would be rid of both offal and pigs. This is done in some individual cases, and it should be required in all cases, on sanitary grounds. Hides and skins should be removed within two days of the time of killing, and the fleshy side should be brushed over with a weak solution of carbolic acid. A good floor for a slaughter house consists of Portland cement mixed with roughly ground stone or granite, laid upon a basis of brick, the whole thickness of the flooring being three and a half to four inches. The inner walls of the slaughter house should be kept thoroughly clean, and lime-washed at least once a month. The lower part of the wall, to the height of four or five feet, should be lined with smooth, hard wood, well painted or oiled

or covered with zinc sheeting, or some impervious material capable of being washed clean. The yard should be well paved and kept thoroughly clean ; the blood should be caught and removed in tight vessels; all offal should be removed within a few hours after the slaughtering has been done. The dressed carcasses of animals are likely to imbibe a septic poison when hung up in a filthy slaughter house. Fatal epidemics of bowel troubles have resulted from eating meat slaughtered and hung up to cool in filthy slaughter houses; and the public are warned against the danger of eating meat which has been slaughtered where there are filthy surroundings.

PRIVIES AND CESSPOOLS.

An open privy cesspool is in most cases a nuisance. The addition of small quantities of water to effete organic matter causes fermentation and the liberation of the gases of decomposition. Either an abundance of water to wash the matter away through some sewer, or water should be wholly excluded. Where there are no excretal sewers the cover of a privy pit should be so made as wholly to exclude rain water. In most cases the ground is more or less porous, and the water sinks into it and carries with it in solution the contaminating matter of the cesspool—perhaps into a well of drinking water two, three or even five hundred feet distant. At best the case offers but a choice of two evils: either the water is evaporated, carrying into the air the noxious gases and, perhaps, the germs of specific disease, or it contaminates the underground water. All privy pits, therefore, should be watertight.

In devising means to an end, it often happens that the object assumes a form different from that first conceived, although it may remain the same in principle—the one form growing out of the considerations given to the other. Thus, as soon as reason has established the case that there should be no open cesspools, but that they should be converted into water tight cesspits, a little further consideration shows that when everything is water tight and dry, no pit at all is necessary. In considering how to prevent exhalations from an open cesspool the first thing that occurs to one is to cover it; the next, to supplement the close cover with water tight walls and bottom, and in order to absorb the liquid and hold it for manure, a quantity of dried earth or ashes is thrown into it. But when the contents of the cesspit are thus changed from a liquid to a dry mass, there appears no reason for a pit at all, and no reason why the mass should not be deposited in tight boxes or tubs, or even on the level of the ground, so as to be easily carted away and avoid the useless labor of digging it out of a pit. Besides the greater facility of emptying, this plan has the advantage of being rather less expensive than the pit.

There is another method which consists in laying a concrete or other flooring at the ground level, to receive the deposit, around the edges of which on three sides the house ashes are arranged. The floor of the privy in this case is raised above the level of the ground—say two feet. The excrement and the ashes are mixed together when required to be removed. If the ashes are carefully disposed around the edges of the excrement floor, they absorb the excess of liquid and prevent its spreading over the surface of the ground outside. This method would of course be objectionable, unless the floor and the space occupied by the ashes were roofed over. This being done, it would be preferable to a pit. Indeed, any kind of a pit is to be avoided if possible. The open pit ought not to be allowed under any circumstances, and seeing the difficulty of making a pit water tight, it is advisable to have none at all.

BURYING PLACES IN THE TOWN.

The eyes of the public should be opened to the dangerous results arising from the practice of interring the dead in immediate proximity to the living. It cannot be denied that to bury the dead in or near a town is a serious evil, and one which has been a subject of sanitary regulation from the earliest times. The

ceremonies of the Jews, the process of embalming practiced by the Egyptians, the burning of the dead by the Greeks, the Romans and the Ethiopians, were but sanitary measures to escape the dangers that arise from the process of putrefaction. The Jews dreaded all communication with dead bodies, so much so that travelers were even forbidden to walk near the places where the dead had been interred; and among the Greeks the practice of conveying the dead far beyond the walls of their cities, as soon as life was extinct, was sustained both by the laws and by the religious doctrines of that refined people. Among the Romans the prohibition of inhumation in towns was fully established in the law of the "Twelve Tables."

We find also that the Parliament of Paris, in 1765, took a stand against the abuses of the then existing system of interment. In the preamble to their decree on the subject it was asserted that "daily complaints are made on the infectious effects of the parish cemeteries, especially when the heats of summer have increased the exhalations." It was not, however, until 1790 that a law was passed by the National Assembly, commanding all towns and villages in France to discontinue the use of their old burial places, and to form others at a distance from their habitations. Not only has the French government, but most of the governments of Europe have of late years given pre-eminent attention to this matter, and in many instances the remains of those who had long laid mouldering in their tombs have been carefully removed from the interior of cities and tenderly deposited in mortuaries, so far distant from the "busy hum of man," as not to endanger the living. Not only should all burying places be remote from habitations, but the mode of burial should be regulated by law. Graves should never be so close to each other as to prevent the access of air through the porous soil to the body; and the earth, even of remote cemeteries, should not be permitted to become saturated with the putrescent exhalations which are characteristic of old and crowded burial places. Both State and municipal laws should require that dead bodies be buried at such a distance from human habitations that the putrefactive process of the grave may not exercise its baneful effects upon the living.

CONTAMINATION OF WELL WATER.

The sources of contamination of well water are: (1) Privy cesspools which are not water tight; (2) soakage of the top-water into the ground, especially over the area of graveyards, and thence into the wells, conveying with it refuse and putrefactive matters; (3) house drains drains which lie near the well, and which allow the house slops to percolate into the surrounding ground, from which they gradually soak into the well; (4) rats, frogs and worms are a frequent cause of contamination of wells; they seem to have a peculiar instinct in finding their way into wells and cisterns. After a long and careful investigation, I have come to the conclusion that that the water of shallow wells is rarely, if ever, fit to drink. Hundreds of instances could be cited to show that this opinion is correct.

We know that typhoid fever is most frequently propagated by contaminated well water. It is safe to say that there is not a well in any town in the State the water of which is safe to drink. Most of the cases of typhoid fever occurring in this State are caused by water drunk from shallow wells. Such wells, says Dr. Edson, "may furnish nice, sweet tasting water, which will impress the drinker with its purity, but they are really what the Bible calls, 'whited sepulchers.'"

Fortunately, the towns of our state are waking up to the importance of a good supply of unpolluted water. The advancement in this direction has been great during the past few years—since the danger arising from wells has been so constantly impressed upon the public mind by the State Board of Health. Among the towns in this state that can testify to a marked improvement in the health of the people after the construction of a public water supply are Cumberland, Frostberg, Hagerstown, Freder-

ick City, Westminster, Havre de Grace, Annapolis, Easton, Chestertown and Salisbury. Centreville has also begun the work of introducing an abundant supply of pure water. When other communities come to understand that the shallow wells from which they now draw their water supply are little better than repositories of typhoid fever and other filth diseases, they will no doubt abandon them for a purer supply.

HEALTH RESORTS OF THE STATE.

Regarding the subject of sanitary improvements at summer resorts, I am glad to report that at Deer Park, the Oakland Hotel and Blue Mountain House the most approved sanitary arrangements have been introduced, and the public may visit these places with a feeling of perfect security against the dangers of sewer gas or bad water. Easton and Salisbury are contemplating the construction of large modern hotels for the accommodation of winter guests. These places are taking on new life, and there can be no reason why their hotels, if properly constructed and conducted, should not be filled with guests nine months in the year. The convenient locations and superb climatic advantages of these towns will give them the widespread fame they merit, if their sanitary administration is well conducted and looked after each year. Easton may be regarded as the pioneer town of the state in this respect. The streets are well shelled and all the highways and premises are kept clean; the water supply, drawn from artesian wells, is exceptionally pure and abundant; cesspools have been interdicted, and all pig pens and slaughter houses have been removed to a safe distance from the town. With the same enlightened care, Hagerstown, with its splendid hotels, good water, fine mountain climate and beautiful scenery, could number its summer guests by thousands, instead of scores, as at present. The place has wonderful possibilities as a summer resort, and if the authorities and citizens will look to its sanitary condition by restoring the purity of the beautiful stream of water that meanders through the town; by paying proper attention to the cleanliness of alleys and back yards; by banishing pig pens, cesspools and filthy slaughter houses, and thus make sure of the good opinion of strangers who come within its gates, there is no reason why its hotels and boarding houses should not be filled, to their utmost capacity, with guests every summer.

THE FLOODED DISTRICTS.

In the month of May certain districts on the Potomac and Susquehanna were visited by a flood unprecedented in the history of the state. By this catastrophe a number of lives were lost at the time, and great danger to life and health was apprehended from the fact that large quantities of organic matter brought down by the flood were deposited in proximity to dwellings, and even in the yards and cellars, the houses and their surroundings being flooded and saturated.

It was feared that the vast amount of filth spread over so large an area would decompose and produce most deplorable results. It is believed, however, that these have been to a great extent averted by the prompt and energetic action of the citizens, under the advice of the State Board of Health, which action will be described in a special report to be hereafter submitted, and which will contain a correspondence with Mayor Latrobe in reference to furnishing a small supply of disinfectants from the flood fund at his disposal. I regret to say that the aid asked for was refused, the reason assigned being that "the committee decided that no part of the flood fund could be used for the purchase of disinfectants," notwithstanding the unexpended balance in hand. This great need, however, was in a measure supplied by the Ladies' Relief Committee of Emanuel Church, and other charitable organizations, which contributed liberally of their small fund for sanitary purposes.

On the other hand, it may be stated that this visitation has not been altogether void of beneficial results, many filthy places having been washed out, which, together with the greater care and

attention paid to sanitary matters, will be the means of saving a fargreater number of lives than were lost by the flood, painful as the remembrance of that loss is.

SANITARY INSPECTIONS.

In addition to the sanitary management of the flooded districts, in most of which the co-operation of the State Board of Health was asked and promptly obtained, the secretary has visited a number of localities in the state, where his presence and advice were requested in matters of public sanitation. Several slight outbreaks of disease, occurring in various parts of the state, have been speedily checked by prompt action, and in no case has any waste of life taken place that could have been prevented by sanitary precautions. The local authorities and the people are becoming well educated to the necessity for promptness in such matters, and are not slow to solicit the co-operation of this board.

The secretary is greatly encouraged by the manner in which his work has been received wherever it has extended—*Baltimore American.*

Medical Items.

The *Chicago Medical Journal and Examiner* has suspended publication.

The Memphis School for trained Nurses recently graduated its first class. This is the pioneer training school of Tennessee.

The recent Legislature of Texas voted $50,000 for the establishment, at Galveston, of a medical branch of the State University.

The American Public Health Association will hold its Seventeenth Annual Meeting at Brooklyn, N. Y., on October 22, 23, 24 and 25, 1889.

A new hospital for Women in Philadelphia, under the care of women physicians, the second of its kind in the city, is to be opened at the northeast corner of Forty-first and Ogden Streets.

Dr. James W. Kerr, one of the oldest practitioners of York County, Pa., died on June 11th, after an illness of two week's duration. He was born in Lancaster County, about seventy-six years ago.

Smallpox is said to be raging in the lower provinces of Egypt. In view of the large exportation of rags from that country to this the matter should be noticed at once by our government.

The New York Medical Journal in quoting from advanced sheets of the *Druggist's Circular and Chemical Gazette* has not spared the editor of the *Philadelphia Times and Register* and the trust which publishes it.

Professor E von Bergman has lately been appointed Surgeon-General of the First Class *a la suite* in the prussian Army (Sanitary Corps), with the rank of Major-Genral: and Professor von Esmarch, of Kiel, has had a similar distinction conferred on him.

At a recent meeting of the Academy of Science, Dr. Armand Gautier, Professor of Chemistry at the Faculty of Medicine of Paris, was elected Member in the section of Chemistry, in the room of M. Chevreul, deceased.

The State of Minnesota, like the State of New York, organized and built an inebriate asylum ten years ago; then they changed it to an insane asylum. A law was passed confining inebriates to insane asylums, and how one of the released inebriate patients makes a protest against this practice.

The government of Chili has created a "Superior Council of Public Hygiene," consisting of seven members, whose duty it shall be to advise the government in everything that relates to the public health throughout the Republic. The Council has a laboratory for chemical anylysis under its control.

M Brown-Séqard announces that the injection of ovarian tissue-juice into debilitated women has been tried and without bad effects. He also says that the stimulating effect of the hypodermic injections made upon himself continues, he having now gone sixteen days without any repetition of the injection.

Original Articles

A CASE IN WHICH SYMPTOMS OF HYSTERIA WERE ASSOCIATED WITH THOSE OF CEREBELLAR LESION.

BY EUGENE F. CORDELL, M. D.,
OF BALTIMORE.

E.W., a well-developed, brown-skinned woman, aet. 23, married, occupation waitress, presented herself at the clinic of the Woman's Medical College, Dec. 30th, 1887, with the following history: Her father died of consumption, her mother is living and healthy. She was married four years ago, but has had no children. Her bowels and monthlies are regular, her appetite and digestion good. Pulse 78. She never had spasms in childhood and the only evidence of family "nervous" tendency is in her sister [as stated later on]. Since last April she has been subject to "spasms;" she had them every day during the summer and still has them occasionally. They come on with a sudden onset and sometimes with a scream, succeeded by unconsciousness, her limbs become stiff and she froths at the mouth and bites her tongue unless something is put between her teeth. She is very drowsy and foolish after these attacks. They have been accompanied by a fall but once, off a chair.

For a long time she has suffered from a feeling of choking in the throat, so that she has to be propped up at night in order to sleep. Her throat is always sore for a day or two after the spasms. One week ago, while cooking, she was attacked suddenly with severe headache in both temples. Her head felt as if it were going "to burst open." This has continued off and on to the present. When she is quiet, she is free of it, but stirring around brings it on. A day or two after the headache began she also began to stagger in walking. This is now her most prominent symptom. When she attempts to walk she reels like a drunken man, from side to side, but always forward or to one side, never backward. [I saw her on the street several times afterwards, going to or from the dispensary, and had the opportunity of observing her carefully when she did not know it. The first impressisn of her would have been that she was drunk. And her helplessness seemed so great that she appeared to be in imminent danger every moment of falling headlong into the gutter, so that I urged her not to go out without some one to lead and watch her.]. She has a dull, heavy look about her eyes, the upper lids act sluggishly and there is slight ptosis. The pupils are dilated but equal. There is an impediment in her speech—a slight hesitation and lisp—as though she did not have perfect control of her tongue (paresis or ataxia?). On protruding the organ, there is no divergence from the median line. She has had to leave her place of work, for fear of falling on the stove. Her vision is defective. When she puts her feet together and closes her eyes she appears to be on the point of falling unless she is supported. An older sister, also childless, has had attacks of headache and falling similar to hers, but without the spasms. Iodide potash, gr. v, bromide potash, gr. xv, three times a day, and a blister to the nape of the neck, were ordered and the case referred to Dr. Hiram Woods for ophthalmoscopic examination with the following result: V. $\frac{15}{20}$, slight astigmatism, no choked disk. Whilst she complained of pain on exposure of the eyes to light, when her mind was diverted, she bore, without flinching, the illumination of the opthalmoscope. She could be made to see perfectly with almost any glass and her vision became entirely normal on placeboic treatment. Dr. Woods' diagnosis was "hysterical amblyopia." I further learned that Dr. Woods attended her in 1885 or '86, for trouble about her ankle. There was then great pain on movement or manipulation in the joint and it became excruciating when she put the affected limb to the floor. She said she had run a needle into it and could feel the end under the skin, but Dr. Woods could find no evidence to sustain the statement. Bandaging was followed by improvement,

Dr. Woods related circumstances occurring under his observation, showing that this woman's moral character was bad.

After this first visit the "convulsions" were reported to recur from time to time, but always with such premonition that she never fell, nor did she bite her tongue. She insisted, however, that she always foamed at the mouth and was unconscious, and that while there was no jerking of the limbs, there was grinding of the teeth and rigidity of the limbs. *Feb. 17th*,1888.—Her symptoms continued the same as before, except that the headache had disappeared, and that she had had no "convulsion" for three weeks. She complained much of a feeling of something rising in her throat which she could not get up. The pharynx was congested. The pupils responded readily to light. The knee-jerk was normal. The same treatment was continued with an alum gargle for her throat. *March 9th.*—The convulsions have not yet recurred, but since four days ago, she has complained of a new symptom, a feeling as though she were going to fall on her face; everything turns around and a sharp pain shoots through her temples. This comes on "now and then." The iodide of potash was increased to gr. x ter die. She reported herself as improving the next few weeks and her gait certainly was better. *April 4th.*—No return of the convulsions yet. She complains now of double vision, also of severe headache, frontal and continuous day and night. She staggers badly. Has had no medicine for a week. Increased iodide to gr. xv. ter die. *April 20th.*- After suffering with severe toothache and frontal pain, she had a "convulsion," followed by others, after which she lay drowsy. She had a series of the "convulsions" on the 21st, during which I had the first opportunity of observing them, at her own house. She lay quietly on her back in bed, apparently unconscious, her eyelids partly open and eyes fixed. The eyeballs were drawn at first to the left and later to the right. I noticed a slight jerk or two of the balls. Her teeth were tightly clenched, and foam, not blood-stained, issued from betweeth her teeth. There was no rigidity of the limbs and no other symptom to be elicited. Pressure on the ovaries produced no effect. I ordered bromide of potassium, which, when administered in a spoon, she swallowed. She remained unconscious, so I was told, until the next morning. She then said she felt better [as she always did after the attacks], except as to her throat, which was as usual very sore. She said she had hawked up a large clot of blood the day before. *April 25th.*—She looks much better and her gait has much improved, but she still has diplopia. Her sight is better. The iodide was continued. *May 14th.*—Her vision appears normal. Her speech is more distinct, her gait no longer staggering, and she seldom has giddiness. Pupils normal. Shortly after this she was well enough to cease attending the dispensary and has not been back since. I have seen her recently and learned the following regarding her condition. She had two "convulsions" last winter similar to that in which I saw her. There are now no symptoms of her former trouble except impaired vision, for which she wears glasses, and the rising in her throat which she cannot get up or down and which chokes and smothers her when she lies down. She also has a good deal of sore throat still. For several months she has been troubled by seeing colors—red, blue and yellow—whenever she looks at anything white; also little dancing silvery spots with tails. She says she is easily scared and unnerved. Has headache a good deal through the temples and in vertex—a feeling as though something were "squeezing her head." Was *not* unconscious after last attacks of spasm. She never had the attacks on the street, but always at home. She never had trouble about her bowels or bladder, nor pain about back or occiput. She has a "touch of rheumatism" in her ankle.

This is the history of a case that appeared quite puzzling to me for some time, and still presents some extraordinary features that perhaps may justify a few remarks.

Was it simply a case of hysteria, and to be explained solely by the undoubtedly existing hysterical cachexia? Is the defective equilibration, as exhibited

in her staggering, drunkard's gait, simply to be referred to ill-regulated functioning of unstable nervous centres? A careful study of the symptoms does not, in my opinion, justify such a view. First let us consider the ataxia. This certainly is not a usual accompaniment of hysteria, as the following facts [in addition to my own negative experience] will show. Two of our latest and most reliable authors—Flint, *Prin. and Practice of Med.*, 6th Ed., 1886, and Strümpel, *Text Book of Medicine*, 3d Ed., 1887, do not once allude to ataxia in their articles on hysteria. Gowers, the latest and most complete writer on Diseases of the Nervous System, whilst referring briefly to ataxia as a concomitant of hysteria, evidently regards it as a rare one and never present in anything like the extreme degree characterizing my case. He alludes specifically only to swaying movements of the body on standing, and to unsteadiness of movement or inability to stand when the eyes are closed. This evidently differs widely from the exaggerated zigzag locomotion of my patient. But on the other hand this peculiar disorder of movement is highly characteristic of lesion of a limited area of the encephalon, viz: the cerebellum. This is a recent acquisition to our knowledge of intra-cranial localization. Twelve years ago Seguin did not know of one symptom that was characteristic of lesions of the cerebellum. He, already, however, attached great importance to "titubation" or cerebellar ataxia, when present [Lectures on Localization, 1877-8, *N. Y. Med. Rec.*, Vol. 13 and 14, 1878]. He described this symptom as follows: "The patient walks with his feet separated, his body bent a little forward and swaying, his hands and arms in use, to preserve equilibrium. There is no true ataxic jerking, no want of harmony between antagonistic groups of muscles, no choreic movements, no tremor." This was an exact description of my case. Nothnagel, a little later (*Berl. Klin. Woch.*, No. 15, 1878), put the matter on a more definite basis by the analysis of 250 cases of cerebellar disease. He found reason to believe that ataxia was characteristic of injury to the cerebellum, or more properly to one of its smaller parts, the superior vermiform process or middle lobe. By cerebral ataxia, he meant" a perversion of equilibrium closely resembling that observed in alcoholic intoxication; the patient titubates, stands with feet wide apart; if he be barefooted the toes are seen in active motion and in walking, the body sways a good deal, the foot is brought down with ball or heel first irregularly; closing the eyes sometimes makes standing and walking worse, sometimes not. In the recumbent position there is no ataxia. In the large majority of cases the upper extremities remain free from inco-ordination." All authors now accept the view that disease of the middle lobe of the cerebellum, or a tumor compressing or irritating the same, causes unsteadiness of movement—a reeling gait and often a difficulty in standing, a tendency to sway which renders difficult the maintenance of equilibrium, a zigzag oscillatory locomotion like that of the drunken man, and yet different from the jerky, irregular movement of locomotor ataxy.—(See Gowers, *Dis. of Nervous System*, Am. Ed., 1888.) A late writer, Dr. H. C. Wood (*Univ. Med. Mag.*, April, '89) goes so far as to say that cerebellar titubation is pathognomonic of tumor or other lesion of the middle cerebellar lobe, but other authors do not go so far. We see by these references that there are strong grounds for believing that in the case reported there was some lesion involving the middle lobe of the cerebellum, either primarily or secondarily. Among the other symptoms found in the case which have more or less though but slight significance (Gowers) are the vertigo, the ptosis, the difficulty of articulation and the convulsions. Regarding the convulsions in this case, we may perhaps exclude them from consideration in this connection, as the preponderance of evidence points to their hysterical origin. How far the eye and tongue symptoms are due to involvement of special centres or special nerves implicated by the lesion, we can only conjecture. The choked disk and opticneuritis which are so characteristic of tumors at the base of the brain, and due to me-

chanical interference with the circulation are far from invariable in cerebellar lesions, and the same may be said of occipital pain. When localized in this region pain has, it is true, a significance, but experience has shown that it is often situated in other parts of the encephalon, as the temples, vertex or even forehead.

In the further elucidation of this case it may be well to recall the fact, that where there is a predisposition to hysteria, that affection may be produced or intensified by the occurrence of other diseases, and especially is this true of diseases of the nervous system. Cerebral tumors in young women often cause conspicuous hysterical phenomena, in addition their direct results (Gowers). Not only are hysterical phenomena excited or intensified by local lesions, but even their situation is under the control of these, so that it may be laid down, as a rule, that wherever we have morbid conditions of the tissues of parts, there we are also liable to have manifestations of functional disorders indicative of unstable nervous action. The bearing of this law upon the case before us is obvious. What is the nature of the lesion (if there be one) affecting the cerebellum in this case? We have no positive evidence of this patient ever having had syphilis, but this fact does not absolutely negative a specific history and we have not been able to give her a thorough examination to test the question. All we can say, at present, is that she is not a woman of strict virtue, but belongs to a class who are frequently exposed to accidents of this nature, and the rapid improvement of the cerebellar symptoms under comparatively large doses of iodide of potash is only what we would expect on the supposition that syphilitic disease existed, for cerebral syphilis is markedly amenable to treatment. Even in extreme cases of this disease, benefit may be expected from specific remedies, and whenever the damage to the brain substance has not been great, complete recovery may be predicted. The probability, therefore, is that there has been a gumma in this case developing in the tentorium cerebelli—which is merely a fold of the dura mater—and pressing upon the middle lobe of the cerebellum, and that the lesion had not attained to any formidable size or encroached seriously upon adjacent structures at the time the treatment was begun.

If this be not the correct—or approximately correct—explanation of this interesting case, then it appears to me we must recast somewhat our views of hysteria and enlarge the circle of influence of that Protean disease so as to embrace the extreme degree of incoördination known as "titubation," a symptom which has hitherto been regarded as characteristic of cerebellar lesion and perhaps of that alone.

Since the above was written Dr. Woods has made a careful examination of the woman's eyes and finds absolutely no evidence of abnormality.

2111 Maryland Avenue.

TRAUMATIC ANEURISM OF THE FEMORAL ARTERY FOLLOWING GUNSHOT WOUNDS.*

BY FRANK C. BRESSLER, M. D.,
OF BALTIMORE.

One of the greatest dangers to be apprehended in wounding large arteries is aneurism. Having had an interesting case of this nature, I take pleasure in submitting its history to you. J. B., aet., 33, capper by occupation, on December 8, 1888, with a number of others was practising target shooting one afternoon about 3 o'clock. While wrestling with another the cat rifle went off accidentally, the ball entering the fleshy part of the right thigh on its outer side, seven inches below poupart's ligament, passing anterior to femur and making its exit on the inner side of thigh eight inches below ligament. I saw him about a half hour later; found him lying on the floor complaining of intense pain along thigh and injured side way up to axillary region. Shock well marked. On examining thigh found

*Read before the Clinical Society of Maryland, May 3, 1889.

a wound as above described; had stopped bleeding before I had arrived. On looking around to see whether much blood had been lost, found little to speak of, perhaps half pint in all. I gave an opinion that a medium large artery had been wounded and would heal in a few days, provided no complications arose. You see, so far I had not dreamt of any severe after results as happened, as no symptoms were present to point in the least to an aneurism. I likewise had carefully examined him before giving the above opinion. Certain reasons compelled me to give an opinion, otherwise I would not have done so, at least, just at this period.

I had my patient carried home, a distance of a block. Again carefully examined him. Gave morphia and atropia for shock, together with brandy, etc. Had cloths wrung out in a 1-4000 bichlorid sol. and wounded parts kept moist with them. Saw him again the same evening. Reaction had taken place, and beyond severe pain in his side and thigh, was doing very nicely.

Next day, 9th, complained of having had severe pain during night; thigh very much swollen and ecchymosed; no signs, so far pointing to aneurism had appeared.

Dec. 10th, limb (thigh) nearly twice its original size from œdema; pain severe and constant, requiring morphia continually; wounds look well. On laying hands over anterior portion of thigh, I noticed a peculiar grating sensation; I, however, overlooked its signifiication, as I thought it due to pressure of the infiltrated tissues overlying the artery. On looking at thigh sideways, likewise observed that the whole infiltrated tissue seemed to rise and fall with each pulsation of the artery. This pulsation seemed universal and not more marked at one place than another. Owing to the tissue being so markedly infiltrated I reasoned that this was simply due to the expansion of the femoral artery and simply transmitted by contiguity. Tuesday, 11th, complained of a great deal of pain along course of bullet wound and on making pressure some pus escaped—about a drachm. I now thought that the above-mentioned symptoms were due in all probability to a possible localized accumulation of pus which could not escape owing to course the bullet had taken and that this pus was chiefly located over and around femoral artery, He complained of some fever (101°); rapid pulse, chilly sensations, sweating and swelling of inguinal glands. These symptoms, of course, made me look to pus formation and strengthened my belief in the further pus formation and accumulation. Wednesday, 12th. Found my patient somewhat easier; limb not quite so swollen and tissue softer. I had given the case a great deal of thought. I had likewise not overlooked the fact that I might have an aneurism to contend with, but owing to the negative symptoms; abandonded the idea. The tissues being softer I carefully examined the limb again; found some changes had taken place. Pulsation more localized. The grating sensation seemed right under my hand. I now put my ear over this localized spot and got a distinct bruit, which seemed to be immediately under my ear. Pressure on the fermoral artery at poupart's ligament stopped the pulsation. On comparing circulation in both limbs over dorsalis pedis arteries found that on the right side retarded. I now changed my diagnosis to traumatic aneurism of the superficial femoral. Elevated the limb slightly to hasten the disappearance of the œdema. Each day made the case clearer, the œdema began to disappear rapidly, which consequently allowed better examination of the limb and likewise made the symptoms more apparent. I now had Dr. Chambers to see the case with me, who agreed with me as regards diagnosis and operative interference. I began my treatment preparatory for operation by giving tonics, keeping bowels open, etc.

On Thursday, December 20th, Drs. Chambers, Moyer, Ankrim, Moore and myself performed the operation as recommended by the various authorities, namely, ligated the femoral above and below seat of injury. All was done under strict antisepsis. Our patient

reacted well from the anæsthesia and shock. Limb was wrapped in cotton warm bottles were kept to his foot. The sensation in limb was perfect; not swollen in the least. The pains now changed to a burning sensation and limb seems to feel heavy.

Friday, 21. Temperature 102°; feeling good but limb still feels heavy. No œdema present; sensation normal. From this date on, nothing of any moment occurred; temperature became normal; pains less and seemed confined in severity to patella; wound failed to unite by first intention and began to discharge freely.

January 1st. He complained of having had a great deal of pain "yesterday" in his limb. On examination find some enlarged sensitive inguinal glands which no doubt was the cause of all his severe pain. I now washed out the wound but found evidence of pus accumulation after the washing out. Now pulled out the drainage tube and saw that it had been blocked up with sloughs which had so closed the lower openings as to allow the pus to escape only when it had reached a certain height, hence free drainage had been arrested for some time. The wound gaped considerably; its surfaces were brought together by rubber adhesive plaster which kept them together nicely.

January 4th. Upper ligature came away, making it the fifteenth day before its separation.

January 8th. Lower ligature came away, making it nineteen days before it separated.

The fistulous bullet tracks gave me a great deal of trouble, inasmuch as they kept discharging constantly, and healed only when the main wound had closed entirely.

The main wound healed nicely, beginning to heal from above down, so that on February 5th he was discharged cured. He complained of stiffness in his knee-joint, but under massage and liniments this condition is rapidly disappearing. From this we see that he was under my attention for fifty-nine days.

In conclusion, from the history of this case, our attention is directed to the following observations:

First. That the quantity of blood lost in this case was deceiving, in that it was no index as to the size of artery involved.

Second. The negative history during the first two days of any symptoms pointing to an existing aneurism. This, in all probabilities was due to the peculiarity of wounds in artery and secondly to the clot which closed these perforations temporarily.

Third. The possibility of pus accumulating over the artery, thus simulating an abscess. Since pressure over track the bullet had taken gave rise to purulent discharge. Add to this fever, chills, sweating and localized pain with infiltrated tissue, might be suggestive of probable pus accumulation.

Fourth. Would our ultimate result have been different if we had operated earlier? I don't think there would have been any decided advantage gained if we had operated immediately after making a positive diagnosis of aneurism, since the limb was still swollen to a marked degree; but by delay absorption of the serum and effused blood took place. We likewise had time to prepare our patient for the operation by giving tonics, etc., thus placing him in a position capable of withstanding any unforseen complications should they arise.

1713 Bank street.

INSANITY AND ALLIED AFFECTIONS.

BY ALEXANDER L. HODGDON, M. D.,
OF BALTIMORE.

ACUTE MANIA.

Definition.—Acute mania is a state of mental exaltation characterized by incoherence, general muscular movements, nearly continuous, which when not self-limited or relieved by treatment, eventually runs into the condition known as chronic mania, It is accompanied by illusions, delusions and hallucinations.

Causation.—The author has already considered this in his article on prophylaxis. One point should be emphasized that is the loss of sleep.

Symptoms.—A very quiet harmless man may suddenly upon the advent of acute mania, become to all appearances a changed being. If he has been doing without sleep for many nights, nursing his sick child, he may suddenly, in the depth of winter, expose it to the extremely cold air, and if interfered with, in this or any other action which he contemplates, will struggle violently. There may be partial or almost complete incoherence. There is a great state of unrest of the muscular system. The arms and legs in some cases may be almost constantly in motion and it may require a number of men, (in the absence of a padded cell) to hold the patient in order to prevent his doing injury to himself or others. He may sing and shout and apparently be enjoying himself. The pulse may be considerably elevated and also the temperature. If the administration of medicines be attempted the subjects of acute mania are apt to resist, and it is with great difficulty that you succeed in getting them to take it after many attempts. The same difficulty is experienced in regard to food, not that they necessarily have a delusion that the food is poisoned, but they seem to have a dazed expression upon their faces and do not look as if they understood what you wished them to do. In this the symptoms are so different from melancholia. Constipation may exist, more possibly from inattention to the calls of nature than from any other cause. The muscular movements in which the patient indulges in some cases, may be so ceaseless that you fear the nerve centres may become exhausted. The acute mania of to-day, is generally unaccompanied by the severe symptoms indicative of the disease of many years ago. What has wrought this change would be a problem hard to solve, but of the existence of such a change we are all aware. The severe type of the disease is, however, occasionally encountered. A typical case of which I was called in consultation to see, some time ago. The man was very violent; would resist efforts made to give him medicine; his limbs were continually in motion, and it took several men to hold him down on the bed. He tried to strike me as well as his attendants, and was markedly incoherent. Before he was taken ill he had always been a remarkably quiet man, but when suffering from the acute mania it was almost impossible to control him. On one occasion when the hot bath was deemed necessary it took nearly half a dozen men to keep him seated in the tub. He seemed to be endowed with a wonderful amount of strength. *Broussais says: 'Maniacs are agitated, vociferous; they are irritated by the slightest cause, and even without provocation, but especially if they are spoken to. It is only sufficient to speak to them to excite them to the highest degree. Their ideas are incoherent; their eyes bright, their muscular strength prodigious. It is often necessary to restrain them, for they are actuated by the wish to break and destroy everything which comes within their reach, and they kill those who approach them unless they are kept in subjection. Some of them, when the accession has been sudden, had already murdered several persons before they could be confined. Many turn with fury against themselves, and stab or throw themselves from heights. The pulse is small and tense, and more or less quick. Sometimes there is scarcely any acceleration in the action of the heart. When they have not been bled, the face is red and swollen, the veins enlarged, the skin hot, the tongue red, the epigastrium tender to the touch, anorexia, and sometimes a yellowish tinge about the eyes. They can remain a long time in this deplorable state without food, without sleep, without feeling cold, yelling and blaspheming day and night, making every effort to break the bonds which secure them, and always dangerous if they succeed in so doing.' This is a graphic picture of the acute mania of fifty years ago, fortunately few such are now encountered. The inability of the acute

*Hammond, A Treatise on Insanity. 1883.

maniac to procure sleep is a very troublesome symptom to combat. Dr. Clouston very ably illustrates the incoherency of acute mania. *"As illustrating extreme incoherence, I give a bit of a 'letter' of twenty pages containing a string of fourteen thousand words, almost all adjectives and nouns with no more connection or aim than those in this specimen: Mediterranean, horses, anathematized, athanasius, propagated, emphatic, monasteries, diocese, Egypt, hermit, biographer, abuse, furor, fury medium, policies, police, hobby, sacred, phrase, administration, ministerial, monasticism, * * * counsel, conviction, revelation, moderate, junior, transact absurd, disinherit, repudiate, natural, instruct, claimant, reiterate, clever, rumor, demurred, finesse, illusion, abstruse.' Now you see there is a sort of association of ideas between a great number of these words, and you can imagine how one arising before the mental vison would suggest the one next to it. Here is another letter from C. K. of a more usual kind of half incoherence: 'Dear Durham's Alla, you will please see that Eliza and Bella are out. Mr. Swan (his attendant) is to give you this in a few minutes. Compts. to Victoria and my mother Queen Elizabeth. I am putting 'John' before John Addison, as I think him entitled to it. No kilts my bonnie Durham my 'charm of life,' more than India's goods to me. Blessing on my bonnie wife. I will love you till the day I die. Compts. to Louise and darling Beatrice, Jane Shore and Elizabeth. "Come into the garden Maud." The various delusions to which those suffering from acute mania are subject, are almost innummerable, and they are obstinate in the extreme in doing the very opposite of what you wish them to do. There may be considerable thirst present. A very interesting symptom sometimes occurs as the disease reaches its crisis and the patient from that moment may go on rapidly improving until he becomes a sane man. The symptom occurs in this manner, the patient may have been raving for some time, limbs in almost perpetual motion, shouts heard many feet away, and suddenly the attendants will come to you saying that they think the man is dying. When you arrive upon the scene of action, instead of seeing the patient's arms gesticulating rapidly and his legs jerking in every direction, as heretofore, you find him very quiet and obstinate, and you cannot but wonder how such complete quiet can succeeed such great uproar. You hear no shouting, and his limbs are as motionless as those of a man enjoying a calm sleep. But the patient is not asleep, his eyes are wide open and any thing you wish him to do or take in the way of treatment, he meets with the greatest degree of stubbornness. There he reclines upon the bed watching your every movement and he appears to take the greatest delight in being obstinate. But does it really please him? no, it is simply a feature of the disease. Anything you wish him to do he greets with a most horrible grimace. As soon as you have seen the patient in this condition you recognize at once that the crisis has passed and that with good care there exists a very great chance for his recovery. Now he is a quiet man and his obstinacy if he recover, will grow less and less until he becomes a sane being.

Diagnosis.—The diagnosis between mania and melancholia, is that in mania they appear to suffer very little if any subjectively. In melancholia almost every look, act and word indicates the mental pain they are enduring. In differentiating between acute mania and hystero-mania, the hysterical element must be taken into consideration and the sexual delusions present.

Prognosis.—There are few diseases whose prognoses are more favorably influenced by treatment than that of acute mania. A disease in which the best of results may be looked for, in many cases if properly treated. When treated outside of an asylum (by one who makes a specialty of insanity), I believe there is a much greater chance of recovery than when treated within the the walls of an institution of that kind.

Duration and Termination: Acute

*Clinical Lectures on Mental Diseases, by T. S. Clouston, M. D., 1884.

mania may became chronic and thus run on indefinitely. It is a difficult matter to draw a dividing line and say that all on one side are afflicted with acute mania and all on the other side chronic mania. The nearest approach to this is, I think, the period of one year. Few, if any, cases of mania can be called chronic when of less than a year's duration, although I believe that many cases of mania which have been running for a longer period than twelve months, are amenable to treatment and may be cured. Acute mania is very amenable to treatment and in a large percentage of cases may be cured, so much so that I believe many cases will never suffer a recurrence and will remain sane for the remainder of their lives. Of course all excesses must be avoided. Many without great care and some with the utmost care will, I believe, die of exhaustion, and it is not to be wondered at when we consider the almost ceaseless movements in which they indulge and the loss of sleep which they sustain.

Treatment: This is a very important part of the subject and one which I fear is too little understood. To begin with, it must be remembered that the patient suffering from acute mania in many cases is experiencing greater muscular action than the laborer who works the hardest. We also know that if the workingman were allowed only a limited amount of food for many days, that he would finally lapse into a critically weak condition, and that if this exercise were kept up for a long time with absolutely no food whatever, that the final result would be death, now to provide against this great tissue waste consequent upon such violent muscular activity, we must at very short intervals administer the strongest of foods and sometimes the most concentrated. Owing to the difficulty frequently experienced of getting the maniac to take the nourishment, it may in some instances become necessary to call the stomach-pump into requisition, owing to their aversion of food at times. The proper amount of food to be given must be decided upon in each individual case. I have given in the the neighborhood of ten eggs per diem to a patient suffering from acute mania. I believe that in this as well as in many other diseases, milk is a valuable form in which to administer nourishment. If the pulse be very much accelerated digitalis may calm it. I have seen it administered in three-drop doses of the fluid extract every three hours bring the pulse down in 24 hours from 140 to 80 beats per minute. The bromide of potassium in my hands has not proven itself very efficacious. I have administered it in about one drachm doses every three hours without noticing much effect from the same. When there is great muscular activity and the brain engorged with blood, I believe that the hot bath, by diluting the blood vessels of the body and creating a comparative anæmia of the brain, akin to normal sleep, may be very useful. Care must be taken not to leave the patient in too long and to watch his every symptom while in there. I have seen a patient almost fall asleep while in the bath and after being taken out lapse into a doze. The question arises, what is the best sedative to check these violent muscular movements? Chloral has many advocates, *but it is a very dangerous drug and must be used with a great deal of caution, if used at all.* A reliable preparation of cannabis indic. is, in the opinion of the author, the most reliable sedative of all, as he has seen it act beautifully in the way of bringing the disease under control. Of course I believe the drug should be pushed and its effects carefully watched and a reliable preparation should be secured, as some of the extracts of Indian hemp are said to be almost inert. The way I prefer to administer it is in the following form and manner:

*℞	Ext. Cannabis ind.	ʒ i.
	Alcohol	ʒ ii.

Solve. S: Fifteen drops every four hours, carefully watching its *effects.*

One of the best means, I believe, of quieting the morbid action of the brain is to give the patient plenty of exercise, walking being one of the best forms.

*The tincture was made from the English extract.

Sometimes they are so obstinate that they will not walk. Under those circumstances I have had a patient wheeled around in a wheelbarrow as a means of exercise until finally he walked along. It is not only the exercise which does good but it is the change of scene as well. As the patient is recovering it may be well to give small doses of the iodide of potassium for a few days and also the tinct. ferri chloridi, acid hydrochloric and tinct. nucis vomicæ in tonic doses. The bromide of potassium may be given in the dose of a drachm at bedtime should there be much tendency toward wakefulness. Should there be any tendency toward flatulency a dose of syrup rhei aromat. every now and then may be found useful.

A cheerful demeanor should be observed toward the patient by both physician and attendants.

Society Reports.

CLINICAL SOCIETY OF MARYLAND.

STATED MEETING HELD JUNE 7TH, 1889.

The 228th meeting of the Clinical Society of Maryland, was called to order by the President, Dr. George H. Rohé, in the chair.

Dr. Charles B. Ziegler was elected a member of the Society.

Dr. J. G. Wiltshire exhibited a

CASE OF HEMIPARESIS OF THE RIGHT SIDE.

Dr. A. B. Arnold thought the case was one of alternate or crossed paresis—the eye trouble being on the same side as the lesion, the hemiparesis being on the opposite side. Usually the lesion is in the crus cerebri, and in this case is probably on the *left crus*.

The *partial* aphasia is an interesting point in the case. It seems to be of the "amnesic" variety in which there is a mutilation of expression "*word picture*" is lost. From the occurrence of neuritis optica Dr. Arnold judged that the lesion was a neoplasm in the left crus involving the eye nerves of the same side, and the pyramidal tracts going to the opposite side. To account for the *speech* defects there is most probably an involvement of the island of Reil or of the superior convolutions of the cerebral lobe.

Dr. A. Friedenwald thought the eye symptoms in this case were misleading. Dr. Wiltshire had stated that the left eye had no vision, and had been blind for some time. Such eyes often turn out—not because the internal rectus is primarily paralyzed, but because the eye does not work.

Dr. H. Woods pointed out a distinct motion of the left eye toward the nose when the patient looked toward the right. Certainly there was no internal rectus paralysis there. He agreed with Dr. Friedenwald's explanation of the divergent squint.

Dr. Wiltshire, in closing, stated that he did not claim that the internal rectus was *paralyzed*. He considered the case one of *paresis*, by which he understood a weakening or partial loss of power in the muscles.

Dr. C. O. Miller exhibited a patient recovered from a

PERINEPHRITIC ABSCESS,

and read an account of the case, dwelling upon the diagnosis from other possible troubles.

Dr. I. E. Atkinson stated that he had seen the case in consultation. For a little time it was hard to exclude the liver as the seat of the trouble. He, however, fully agreed with Dr. Miller's diagnosis, and congratulated the doctor on the successful outcome.

Dr. E. F. Cordell read a paper on

THE TREATMENT AND PREVENTION OF MAMMARY ABSCESSES BY METHOD FRICTION.

Dr. J. M. Craighill thoroughly disapproved of breast pumps. They are painful and keep up irritation. In one case he had seen a gathering prevented by the timely use of a puppy. This ani-

mal kept the milk ducts from being distended. He approved of friction with oil, and had successfully used a mixture of laudanum, lard and turpentine in the friction. The rubbing should always be towards the nipple. The old-fashioned "pancake" treatment often does good by furnishing heat and moisture.

Dr. Gardner thought that friction was very beneficial in the early stages. The trouble is to get the nurse to do it correctly. She should stroke from circumference to the nipple, at first gently, and with gradually increasing pressure as far as it can be borne. Accumulation of milk he considered the chief cause. In the later stages poultices should be used.

Dr. Hill said that after fluctuation showed puss, the lancet was the only effective remedy. In cases of the death of the baby he has often succeeded in preventing mammary trouble by having the mother wear a canton flannel jacket, with slips over each breast. Pieces are firmly applied over the breasts and are kept as tight as can be borne. This keeps the milk from accumulating.

Dr. E. F. Cordell, in closing, said that he had no intention of recommending friction as a method of getting *pus* out of the breast.

Dr. Randolph Winslow presented a

SPECIMEN OF PERIOSTEAL SARCOMA OF THE CLAVICLE.

The patient, a colored man 32 years of age, claims to have been shot in this region with bird shot, but whether this was the exciting cause or not is not known. About Christmas he began to have pain and swelling at the sterno, clavicular articulation. At the time of operation a semifluctuating painful mass the size of a hen's egg occupied the inner third of the clavicle. The growth was removed without much difficulty, though it required a rather delicate dissection. Sarcoma of the long bones is not very uncommon, but the clavicle is not often affected in this manner. The clavicle was divided about its middle in this case. On section the growth is seen to arise from the periosteum, but the bone is also involved. Dr. Winslow also showed specimens of pyosalpinx and pelvic abscess removed from a woman 30 years of age, who had had repeated attacks of so-called pelvic cellulitis. Being called in consultation to see the case, a vaginal examination revealed an induration in front of the uterus, which was tender and painful. Bimanual palpitation showed the left side of the pelvis blocked up, and on the right side a sausage shaped mass which rolled under the fingers. Operation revealed double pyosalpinx, the left tube being nearly as large as the small intestine and filled with pus, the left ovary also being converted into a puss cavity, with an abscess between this mass and the pelvis. A lot of foul pus escaped into the pelvic cavity, which was immediately flushed out The patient did well and was up in two weeks. Urine came through wound on sixth day and continued to do so until two weeks had elapsed, when it had about stopped.

Dr. Samuel Theobold presented

A HORNY GROWTH REMOVED FROM THE LOWER LID.

The growth was one inch long, and about one eighth inch thick at its base. These growths are very rare. They are usually supposed to be due to persistent accumulation of sebaceous material.

Dr. Theobald also related the following case: A lady, suffering from chronic aural catarrh, with very defective hearing and tinnitus, was struck on the ear, in play, by her sister. On examination the doctor found a perforation in the drum, and through the perforation the tympanic mucous membrane could be seen in a sclerosed condition. The "promontory" presented a dry, gray appearance, such as is sometimes seen after an otorrhœa has been cured. The case illustrates how small an accident may produce a rupture of the drum. After ten days there was no sign of the perforation closing. Another interesting point was the cessation of the tinnitus aurium after the drum had been ruptured.

Dr. Greene, in reference to the first of these cases, asked if it was generally ac-

knowled that such growths came from sebaceous accumulations.

Dr. Rohé thought that as a rule these horny growths had epithelial tissue at the base, and would so be regarded as epitheliomatous in character.

Dr. H. Woods, referring to case II, asked if, with the perforation and the subsequent cessation of the tinnitus, there had been any increase in the hearing power.

Dr. Theobald replied that there was a slight but perceptible improvement.

Dr. Woods stated that recently some specialists had undertaken the operation of cutting into the drum for the cure of tinnitus, and even of removing the drum and the malleus to improve the hearing in such case of dry, sclerotic aural catarrh. Dr. Samuel Sexton, of New York, has done the best work in this line. Dr. Sexton kindly showed Dr. Woods last fall some cases upon which he had operated. One case, particularly, was striking. A young lady who had, Dr. Sexton said, been unable to hear anything but loud talking before the operation, readily understood ordinary conversation across the room, a distance of probably fifteen or twenty feet. She stated herself that her hearing was perfectly restored. Ear specialists generally do not seem to think well of the operation.

Dr. H. Woods showed a foreign body—presumably a piece of thin, hard rubber—which he had removed from under the upper lid after it had been there two months without causing distress. The patient was a young girl of fourteen, and was brought to Dr. Woods by her mother, who was under his care. For two months the mother had noticed a "black object occasionally protruding from under the upper lid." It would then disappear, and the young lady could at any time "work it down by twisting her eye around." Dr. Wood's found a thin, black object, partly covered by the upper lid, the lower end resting on the sclerotic, about a line from the inner corneal circumference. It did not cause any uneasiness nor had it ever done so. How it got there the patient did not know. She first knew of its presence by being asked by a school-mate what the "black thing" was in her eye. The foreign body measures one-half inch in length.

Correspondence.

PRACTICAL UNFITNESS OF WOMEN AS PHYSICIANS.

WAVERLY, BALTO., MD., Aug. 2.

Editor Maryland Medical Journal:

DEAR SIR:—It occurs to my mind that the statement in your journal of last week's issue, relative to the "Practical Unfitness of Women as Physicians," judging by the changes made at the Woman's Medical College of Philadelphia and the so-called "logical deduction," is erroneous, if not unjust.

In a correspondence with Professor Bartholow, of Jefferson College, several years ago, relative to the standing of the Woman's Medical College, he said: "In the high standard required for medical education; thorough system for training; access to large hospitals and the efficiency of its corps of professors, she stands on an equality with the Jefferson and is planned after it. During the last ten years the most efficient professors have been in charge of the Woman's Medical College, the majority of whom have been women."

In the death of Dr. Rachel Bodley the college mourned the loss of a noble professor, but there are others fully competent to succeed Dr. Bodley.

No doubt other influences rather than incompetency is being brought to bear in supplanting women as professors in the college.

May not the more politic and wire-pulling propensities of men be the means, especially knowing the standing of the institution, rather than the above allegation?

Dr. Emily Dubois is fully competent to fill the place of Dr. Dickson. Why was she supplanted? Do you know?

Women physicians have had enough to do to combat the prejudices of people without journals taking up the cudgel.

Very respectfully,

C. J. Wise.

WANTED—DIAGNOSIS AND TREATMENT.

Wedgefield, S. C., 25th July, 1889.

Editor Maryland Medical Journal :

Dear Sir :—A case of exceeding interest has recently come under my observation in a little girl ten years old who enjoys good health, sleeps well at night, good appetite ,looks hearty, but ten months ago was taken with hiccoughs which have persisted up to the present time. Every now and then—at varying intervals—they get worse and every few moments during her waking hours she is hiccoughing very loudly, and it is when these severe attacks come on that she suffers with pain in her chest. She has been treated by some of the best physicians in the state without deriving any benefit whatever from anything that has been done for her. A few days ago her father brought her to my town, thinking that a change would do her good, having taken her to Charleston where she seemed to get worse. Since coming here she has had several attacks of hiccoughing. I was called in and found her in the condition described above and would not have suspected that anything was the matter had I not heard her hiccough. Was told that the doctors in Charleston and elsewhere said that it was caused from indigestion, but on examination failed to find any symptoms at all that would lead one to suspect the same. So, failing to find any pathological condition at all, I decided that it was a nervous trouble and treated it accordingly, but so far very little, if any, benefit has been derived from it. She has not had any severe sickness excepting a case of typhoid fever a few months, I think, before the hiccoughs commenced. The child is not of a particularly nervous disposition. I am very much interested in the case, and any information which you can give will be highly appreciated.

Another thing that I would be very glad to receive information about is swelling in negro children. Hardly a day passes that I do not see at least one or two, and all between the ages of seven months and two years of age, or during the period of first dentition. I saw a child yesterday, one year old, whose feet and hands were swollen enormously. I never saw anthing to equal it. Face and body swell also, but not so much as hands and feet. In these subjects I notice too, that the feet and legs are very cold, even in very warm weather. There is nearly always some bowel trouble in these cases. Of course the diet, hygiene &c., in these cases are very poor. The cases do not seem to die, as I have not heard of a death amongst them. They lose flesh though and appetite gets very poor. The urine of one or two was examined for albumen but none was found but has a *very offensive odor.*

Any enlightenment on this interesting subject will be gladly received. Have not noticed any cases in the better class of my practice. Can it be syphilitic ?

Respectfully yours,

F. M. Dwight, M. D.

Suicide and Life Insurance.—The Washington Life Insurance Company reports a decided tendency to increase of suicides in recent years. Shooting is the means selected in about half the cases. It is more frequent among the young than among the old, and on this account the company's *a priori* expectation had been in the direction of a decrease in this cause. This expectation has been balked, and the writer of the report goes so far as to say that the increase in recent years has not been purely a matter of accident, and that the decisions of the courts have not been such as to discourage suicide among the insured.—*New York Medical Journal.*

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BALTIMORE, AUGUST 17, 1889.

Editorial.

THE AMERICAN SAFEGUARD AGAINST BURIAL ALIVE.—At intervals in the history of society great excitement has arisen concerning tales of the burial of persons who were in a state of trance or stupor. Recently, in this country, the cry was raised that Bishop was not dead but in a state of catalepsy, which the doctors took for death.

What physician has not sometimes been met by the request from the friends of a deceased patient to be "*very sure* that death has occurred before he gives a death certificate, because the patient feared that he might be buried alive." If one reads the articles which appear now and then in medical journals on "the certain signs of death," he cannot but infer that in some cases there are no *certain* signs of death for days after it has occurred. The practice of medicine is founded not as a rule on *certainty* but on *probability*, and the certificate of death does in some cases rest upon the same foundation. In cold countries this probability passes into a certainty in the days which elapse before burial, but in warm countries where burial is hasty it must at times remain a probability.

The active American brain, it seems, solved the problem long ago from another point of attack. According to the "Journal of Useful Inventions" there has lain for many years in the Museum of the Patent Office a model of "an after burial safety casket." When a supposed corpse, buried in this casket comes to life, one of its first impulses is to kick. The kick moves a plate to which the foot is attached; the plate moves a rod; the rod slides away a glass plate from above the face of the buried one. A way is thus opened into a vertical ventilated shaft furnished with a ladder. The late patient seizes the rounds of the ladder and climbs to the top of the shaft, which overlooks the ground. After partaking of wine and food which have been placed in the shaft, he lifts the glass top of the shaft and gazes again upon the green earth, Then, emerging from his resting place, he rejoins his weeping family. All this but shows how superior at times the common sense of a lay mind is to the scientific speculations of those learned in medical science.

Miscellany.

EPIDEMIC DISEASES AMONG SWINE.—Drs. E. O. Shakespeare, R. Meade Bolton and T. J. Burrill, a commission appointed to examine into and report on

epidemic diseases amoung swine, have made their report to Secretary Rusk, with the following conclusions:

1. It is the opinion of the commission, based upon their individual observations and examinations of the subject, that there are at least two widespread epidemic diseases of hogs in this country which are caused by different micro-organisms, but which have a clinical history and pathological lesions more or less similar and very difficult to distinguish without the aid of the microscope, and resort to bacteriological methods; and that these two epidemic diseases have been fairly well described in the recent annual reports of the Bureau of Animal Industry, except it does not appear that the "hog cholera" of these reports can be said to have its special or exclusive seat in the digestive tract of the animal as distinct from the lungs. So far as the knowledge and the observation of the commission go, one of these epidemic diseases, viz., that called by the bureau authorities "swine plague," appears to be far less prevalent than the other, which has been named by them "hog cholera."

The commission are further of the opinion that the disease called by the authorities at Washington "hog cholera" is caused by the specific action of a certain microbe named by them "the hog cholera germ," which has certain characteristics of form, size, movement, mode of growth in artificial cultures, and action upon certain lower animals, and taken altogether, enable one to distinguish it from other microbes which have been described from time to time by various authors as present in swine disease; and that the descriptions of this microbe and its peculiarities, as set forth in recent annual reports of the Bureau of Animal Industry, are fairly accurate.

The commission are also of the opinion, although to a less positive degree, that the epidemic diseases called by the bureau authorities "swine plague," has as its specific cause a certain microbe possessing characteristics which have been fairly well described in recent annual reports of the Bureau of Animal Industry, which distinguish it both biologically and pathologically from the first mentioned "germ of hog cholera."

2. It is the opinion of the commission that the actual and undeniable proof of the pathogenic relations between the so-called "hog cholera germ" above mentioned and the disease of hog cholera was first published in the annual report of the Department of Agriculture for 1885, and in the second annual report of the Bureau of Animal Industry of the same year, hence was not antedated with respect to epidemic diseases of swine existing in the United States. The discovery of the disease called "swine plague," and of the microbe to which it is due, must be considered original, on the part of the bureau authorities, at least as far as work in the United States is concerned.

3. In the opinion of the commission, the epidemic disease of swine investigated by Drs. Billings and Roberts in Nebraska, however seemingly indifferent in the published descriptions, is identical in its clinical features, pathological lesions and specific cause with the disease investigated by the Bureau of Animal Industry at Washington, and called by the latter "hog cholera;" and, furthermore, that the pathogenic microbe, which is the specific cause of this disease, is identical in both instances. It is also their opinion that the descriptions of this germ published by each of these investigators are in the main correct. The two chief points in these descriptions upon which the abovementioned investigators have differed more or less widely are as to some minor points of morphology and variations of the microbe under various methods of staining.

4. It is the opinion of the commission that the microbe which Dr. Detmers at present regards as the specific cause of "hog cholera" is probably the same microbe which is considered by the bureau authorities as the specific cause of hog cholera, but according to present requirements of bacterial research and interpretation it is impossible to declare that the organism as described by him in his report published by the Department of Agriculture was the same thing.

In their observations of the methods of bacteriological research pursued by the Bureau of Animal industry at Washington, the commission are of the opinion that as to carefulness and precision, they are up to the standard of modern requirements concerning bacteriological investigations. They are essentially the same as those pursued at Berlin in the pathological laboratory of the imperial board of health and in the Hygienic Institute, of which Professor Kock is at the head.

From their observations of the methods of bacteriological research pursued by Dr. Billings in Nebraska, the commission are of the opinion that it was difficult, if not impossible, for that distinguished investigator, by his usual method, to discover and isolate a germ associated with "the hog cholera germ" in the tissues of the body of the pig, and this is particularly true of the so-called "swine plague" germ, claimed by the bureau authorities to be the specific cause of the epidemic disease latterly named "swine plague." In the opinion of your commission, therefore, the failure of Dr. Billings in his researches to find the so-called "swine plague" germ in the tissues of the spleen (the organ from which he most invariably made his cultures) cannot be regarded as incontestible proof that the "swine plague" germ had no existence in the afflicted hogs which had fallen under his observation, and affords no evidence that this last-named disease does not occur in Nebraska.

It is the opinion of the commission that the only proper way to test practically the real value of artificial protection against "hog cholera" is to expose the supposed protected pig to the natural acquisition of the disease under ordinary conditions, such as exist among a herd of hogs suffering from the natural disease. It is a well-known fact, brought to light by recent investigations, concerning the nature of infections diseases, that immunity or protection from a second attack, whether artificial or natural, is not absolute, but only relative in degree.

As far as our present knowledge extends, treatment of existing cases is futile. There remains, therefore, to be considered but two alternative means of prevention—quarantine and extermination of infected hogs, with their surroundings, or, on the other hand, some form of preventive inoculation.

The vast importance of the subject calls for an exhaustive investigation as early as possible of this latter means, for the former is very difficult of application.

Some of the tests made in Nebraska under the direction of Dr. Billings certainly give promise of great possibilities in this direction. It is the opinion of the commission, however, that an attempt to produce immunity from "hog cholera" artificially by the use of the living germs of the disease, either through the stomach or through hypodermic inoculation, is very objectionable, and involves a serious risk of more widely extending the disease, and increasing rather than diminishing the enormous losses therefrom.

The Thermometric Bureau.—The comparison of thermometers has continued to be made by Mr. C. B. Peck. The number received for verification during the year ending June 1, 1889, was 7,475, being 249 in excess of the preceding, our maximum, year.

It is perhaps well to call public attention to the fact, not new, but continually overlooked, that the most accurate thermometers may be made to give false testimony, by misinterpretation of their language.

Although every certificate issued from this Observatory, for other than clinical thermometers, contains a statement of the only conditions under which the correction therein given can be truthfully applied, we are continually called upon to explain, especially in the case of high temperature thermometers, that when only the bulb is immersed in a liquid of high temperature, the indicated temperature is too low by an amount depending upon the number of degrees of the mercury in the cooler stem and the difference between the temperatures of the bulb and stem. We have been called upon to show frequently that this

error, which is independent of any correction due to the thermometer, may be as much as 8° or 9° in the case of high temperature oils, as their temperatures are generally measured. A simple remedy for this indefiniteness of measurement would seem to be a special form of thermometer in which nearly all the mercury should be immersed. As a result of considerable correspondence with parties interested in the accuracy of measuremets of this sort, it was suggested that this Observatory should be represented at a convention held last January, but as it did not appear that the expense to the Observatory would be covered by the compensation likely to be received from this class of work, and the funds were wanting to enable us otherwise to render this public service, no encouragement was given to tender the proposed official invitation.

Of the same nature is the correction of possibly 1.0° to be applied to clinical thermometers of the "Indestructible Index" form, when the detached column of mercury constituting the index is quite long (expressed in degress) and is read after removal to a much cooler atmosphere. Our comparisons require us to take precaution on this account in the colder days of winter; but any notice of the matter or instructions on the precautions to be taken in using these instruments have been deferred until a new edition of our circular of instructions and conditions should appear to be called for, and this the more readily because the probable error on this account does not exceed the probable error of reading.—*From Report of Yale Observatory.*

Death from Hydrophobia.—The following particulars of a case of death from hydrophobia in Birmingham have been forwarded to us by Dr. Richard Drury. The sufferer, a lad aged 15, who had lately resided in Ceylon, arrived three weeks ago in Birmingham. In November, 1888, he and his brother (a baby) were bitten by a stray dog. As a precautionary measure, the wounds were sucked and cauterized. It is not known that the dog was rabid, as before that fact could be ascertained it was drowned. On July 13th the elder lad complained of not feeling well. The following day he kept the house and had a slight shivering fit. On July 17th Dr. Drury was summoned. He was told there was difficulty in swallowing, and that the patient seemed in danger of being choked. He found a very well-developed young fellow in bed, who had a sullen and apprehensive aspect and very reticent. Totest his vocalization he was asked his name, which was not clearly heard until he had repeated it several times. No redness or swelling of the fauces was perceptible, and nothing abnormal was revealed to the touch. On the right side there was a slightly swollen submaxillary gland. A cup of water was then handed him to drink to try his powers of deglutition, and here the first suspicion was aroused, for the moment he saw the water he was seized with spasm of the pharynx, and it was only on pressing him to drink after much protestation on his part that he managed to take two or three gulps. There was no headache, no heat of skin, and the pulse was calm. As the pharyngeal spasms kept constantly recurring chloroform inhalations were ordered. During the day he had short intervals of sleep, and took some solid food. His condition at night did not seem worse. He passed a bad night, but took nourishment freely; and in the morning he stated he had drunk easily two cups of tea, and said if he could only get "this lump" out of his throat he would "feel as happy as a bird." He made frequent attempts to vomit and to eject the viscid mucus from his fauces. His mind was perfectly clear. Receiving a hurried message saying the lad was worse, Dr. Drury on his arrival found the patient struggling for breath. The spasms of the throat had greatly increased. He was vainly attempting to get rid of the glairy mucus that kept constantly filling his throat, which could not be removed by any effort on his part, and had to be wiped away from time to time with a handkerchief. Later on Mr. Bennett May saw the case in conjunction with Dr. Drury, when

the lad was found to be in great anguish and distress, excessively restless, at times struggling with maniacal frenzy, but lucid at intervals, recognizing those surrounding him, and able to articulate clearly. His features were of a dusky leaden hue, and the pupils widely dilated. The spasms commencing in the pharyngeal muscles affected also those of respiration. The muscles of the trunk and limbs were flaccid. There was no trismus. The tenacious mucus became excessively copious and deeply stained with a coffee-ground-looking material. Gradually the pulse began to fail, the extremities became cold, and in a few hours death ended a most painful scene. —*British Medical Journal.*

Intra-Uterine Compression of the Aorta in Post-Partum Hæmorrhage.—Dr. Hoyos, a Cuban practitioner, writing in the *Revista de Ciencias Médicas*, mentions a case of most alarming post-partum hæmorrhage to which he was called by a midwife, who fortunately seems to have been a very intelligent person, and in which, finding the patient *in extremis* with the hæmorrhage still continuing, and having nothing in the way of appliances with him except a hypodermic syringe and some ergotine, he proceeded first to clear away the clots from the uterus. While his hand was in the cavity of the organ he was struck with the distinctness with which he was able to feel the pulsations of the abdominal aorta, and determined to try, as a temporary measure at all events, to stop the bleeding by means of pressure, a method which he knew had been recommended and practiced by Dr. Sejournet and other obstetricians. In order to effect this, he simply turned his hand so that he could feel the pulsating vessel between the pulps of the fingers and the vertebral column. He then exerted firm pressure, and was immediately aware that the gush of blood, which up to that time had been welling up round his hand, had stopped. Keeping the right hand in the uterus, he contrived with some little difficulty to administer a hypodermic injection or two of ergotine with his left hand, as the midwife prepared everything for him. After a few minutes he withdrew his hand, he and the midwife keeping up the pressure externally. When the instruments for which he had sent a messenger arrived, he administered an intra-uterine injection of corrosive sublimate in a solution containing 10 per cent. of spirit. Brandy was also given, and more ergot, both in the form of ergotine and in powder. The patient soon revived, and though the hæmorrhage showed a disposition to return a few hours later, it was controlled by means of intra-uterine irrigation and hypodermic injections of ergotine. Dr. Hoyos remarks that while it is quite possible that aortic compression may not always be the best practice, still in such a case as this, where no uterine syringe was at hand and the patient was *in extremis*, its employment may probably be the means of saving life.—*Lancet.*

Nephrectomy of a Horshoe Kidney.—Professor Socin, of Bâle, performed an exploratory operation last year on a woman, aged 47, who had been subject for thirty years to pains in the right hypochondrium, where a tumor had gradually formed. He aspirated, and found that the swelling contained urine; then he performed nephrotomy. Hydronephrosis was discovered during the operation. The urine passed by the urethra remained normal, but on and after the fourth day an abundance of turbid urine drained from the opening made in the kidney, and an examination led to the conclusion that parenchymatous nephritis and purulent pyelitis were present. On May 12th nephrectomy was attempted. After an abdominal incision and successful ligature of the structures in the hilum, it appeared that nothing was left to do besides setting free the lower part of the diseased kidney. On careful manipulation this extremity was found to be continuous with a bridge of renal tissue, which passed over the aorta and vena cava and joined the lower part of the left kidney. This bridge or isthmus was found to be but loosely connected with the great vessels. Dr. Socin divided it by means of the

thermo-cautery, so that the right side of the horseshoe kidney came away. Five ligatures were applied to bleeding points on the raw surface left behind, which was then covered over by the capsule, the edges of the latter being united by sutures. An abdomino-lumbar drain was applied. The patient was in excellent health four months after the operation. In Braun's (Heidelberg) similar case a horseshoe kidney was discovered at operation for the removal of a pyonephrosis. The isthmus adhered strongly to the vena cava; on attempting to separate them, profuse venous hæmorrhage occurred, which was controlled with difficulty. The patient sank from exhaustion at the end of the operation.—*British Medical Journal.*

Death from Electricity.—A death has recently occurred at Brighton from the accidental contact of the conducting wire of the electric lighting apparatus with the neck of one of the *employés* at a brewery. The deceased was "found dead" in the neighbourhood of the fatal electrical conductor, and we are told by a report in a daily newspaper that a post-mortem examination revealed perfectly healthy organs, the only abnormality in this case being "a mark half-way round the neck as if grazed by the wire." With the extension of electric lighting occasional fatalities of this kind are to be expected, and the number of deaths from this cause has already been considerable. In the case recently reported there was, it is to be observed, a slight mark upon the body, and in a case which occurred in 1884 a blister was found upon one of the fingers of the deceased with which contact had been accidentally made by the machine. In other cases there has been no mark whatever, so that we may conclude that the pathological evidence of the cause of death in such cases is almost *nil*. It seems to us of the greatest importance that these accidents should be carefully studied, and it would almost seem to be the duty of the Local Government Board to send a trained pathologist to attend the post-mortem examination of every case which occurs, in order that a careful comparison might be established between the cases, and any points which they might present in common be duly noted. This could only be done by one having considerable accumulated experience, and such experience could only come to one having such opportunities as an official position would give. The matter is of very great importance, because a cause of death which is, so to say, gradually becoming omnipresent, and which leaves no mark, is tolerably sure to be made use of for criminal purposes, and if there be any certain means of establishing how death took place, a knowledge of this would be the only means of checking the misdeeds of persons with criminal intentions. It generally has happened hitherto that the surrounding circumstances have left no doubt as to the cause of death, but it is not reasonable to suppose that such would always be the case, and if it suited the crafty schemes of a criminal it might very easily be contrived otherwise. In short, there is no doubt that we ought to use every endeavor to increase our exact knowledge of this cause of death, and we can only hope that post-mortem examinations will be carefully made in all cases which occur, and that practitioners will regard it as a duty which they owe to the profession and the public to place upon record the results of such examinations.—*Lancet.*

A New Method of Treating Fractured Patella.—At a recent meeting of the Clinical Society of London, Mr. Mayo Robson showed a patient (a young woman) on whom he had operated by a novel method to secure bony union in a case of fracture of the patella. The skin over and around the joint was cleansed and rendered aseptic and the joint then aspirated. Drawing the skin well up over the upper fragment, a long steel pin was passed through the limb from one side to the other, just above the upper border of the patella. The limb being similarly transfixed just below the patella, gentle traction on the pins brought the fragments into apposition. Antiseptic dressing was applied, and left undisturbed for three weeks: when it was removed there

was no sign of irritation and the temperature had never been above normal. As the fragments seemed well united the needles were withdrawn, a plaster-of-paris splint applied, and the patient allowed to go home. Mr. Robson observed that the only precaution necessary was to draw up the skin over the upper fragment in order to avoid undue traction upon it when the fragments were approximated. If there was much effusion in the joint it would be desirable to aspirate.—*Medical Record.*

Medical Items.

Drs. Bowen and Davidson late of the University of Maryland, are at Berlin.

The Mississippi Valley Medical Association will hold its next meeting at Evansville, Ind., September 10th, 11th and 12th.

The daily papers report a large number of cases of typhoid fever in certain districts of Chicago.

The attempt to collect subscriptions for the erection of a monument to Ohm at Munich, has been most successful and work will soon be begun.

It is stated that in India it is intended gradually to cease using lymph taken from human subjects, and to depend solely npon calf lymph.

Dr. Charles B. Nancrede, of Philadelphia, has just been elected Professor of Surgery in the University of Michigan, Ann Arbor.

The death of Dr. Charles Elam, a distinguished London physician and writer, is announced. Dr. Elam was in his sixty-fifth year.

The German Medical Congress has recommended that drunkenness be recognized as a reason for placing a person under trustees.

The seventh meeting of the International Pharmaceutical Congress, was to have been held in Milan this year, but it has been postponed to September, 1890.

The Seventh annual meeting of the American Rhinological Association, has been postponed to October 9th, 10th and 11th, at which time it will be held in Chicago.

Dr. W. H. Howell, associate professor in physiology at the Johns Hopkins University, has been offered a lectureship in that branch in the University of Michigan, which he will probably accept.

The magnificent Atlas of Diseases of the Lung, which was left unfinished by the late Dr. Wilson Fox, will be completed by Dr. Coupland and published by subscription by the Messrs. Churchill, of London.

The doctors in the Montevue Hospital at Frederick, Md., are having trouble over the administration of medicines, the visiting physician claiming that the Superintendant gave medicines not prescribed.

A steerage passenger on a Cunard Steamer to Boston, was forcibly vaccinated on board, suffered with abscesses as a consequence, and brought suit against the company which was compromised.

F. A. Davis, of Philadelphia, has in press a new work on the Practical Applications of Electricity in Medicine and Surgery by Dr. G. A. Liebig, Jr., of Johns Hopkins University, and Prof. George H. Rohé, of the College of Physicians and Surgeons, of Baltinore.

The part on Physical Electricity, written by Dr. Liebig, one of the recognized authorities on the science in the United States, will treat fully such topics of interest as Storage Batteries. Dynamos, the Electric Light and the Principles and Practice of Electrical Measurment in their Relations to Medical Practice.

Prof. Rohé, who writes on Electro-Therapeutics, discusses at length the recent developments of Electricity in the treatment of stricture, enlarged prostate, uterine fibroids, pelvic cellulitis, and other diseases of the male and female genito-urinary organs.

The applications of Electricity in dermatology, as well as in the diseases of the nervous system, are also fully considered.

The work will be fully illustrated by engravings and original diagrams.

Original Articles

AFFECTIONS OF THE BURSÆ.

BY RANDOLPH WINSLOW, M. A., M. D.,
BALTIMORE, MD.

There are normally in the body about 150 bursæ, but as bursæ are capable of forming at any point which is subjected to prolonged pressure the number may be materially increased. The bursæ are closed sacs containing synovial fluid, usually placed between tendons and the bones over which they glide, or between the skin and exposed portions of bone, but which may form adventitiously at points of irritation. The bursæ are anti-friction apparatus which are intended to facilitate the normal motions of the part. They are usually small closed sacs containing fluid which is glairy or oily and resembles the white of eggs, but some of the synovial bursæ are quite large, as the one placed between the gluteus maximus and the great trochanter. These little bursal sacs are liable to both acute and chronic inflammation, to wounds and injuries. As most of the large tendons have one or more bursæ connected with them, this fact should be borne in mind and their anatomical relations should always be remembered. For instance, there is a bursæ placed between the ligamentum patellæ and the tibia and a gunshot wound or a stab below the patella is liable to be mistaken for a penetrating wound of the knee-joint, and this seems to be the more probable as there is an escape of glairy fluid which resembles the synovia of the knee. By remembering the situation of this bursa a considerable degree of apprehension may be avoided in such a case. The bursæ are liable to acute inflammation as the result of cold, rheumatism, gout or injury and when idiopathic the nature and seat of the inflammation is likely to be overlooked, unless it is remembered that a bursa normally occupies the same situation. Acute bursitisis very prone to terminate in suppuration, in which case it must be treated asan abscess. It is with chronic affections of the bursæ that we have most to do surgically. As the result of long continued irritation, or injury, subacute and chronic inflammation is set up in the bursal sacs. As a rule the signs of inflammation are slight and the patient does not complain of pain to any great extent and only seeks counsel when the swelling from its size or situation has become inconvenient or disfiguring. There are at least three stages or conditions of bursal swellings. 1st. Simple inflammation of the bursa with enlargement and distension of its cavity with its proper secretion. In this condition, the affected bursa forms a globular swelling, translucent, tense and fluctuating, thin walled, and with no external appearances of inflammation. The contents consist of straw-colored or stained fluid, viscid in character, varying in amount from a drachm to several ounces. 2nd. The walls become somewhat thickened by the deposition of fibrin, the cavity becomes filled with a more or less mixed fluid, perhaps dark colored or resembling jelly and containing bodies resembling grains of rice or melon seeds. These tumors will be harder than the first variety, and a crackling sensation can often be elicited upon manipulation. 3rd. The walls become very thick and the cavities very small, but still containing an unctuous secretion with perhaps some of the fibrinous bodies mentioned above. In very rare cases the cavity becomes obliterated and the swelling is solid. In fact the changes are those which are usual in inflammatory condititions of the serous sacs, as for example, the pleura.

The bursæ which are situated between salient bony projections and the skin are sometimes spoken of as simple bursæ, those between tendons and their origins or insertions as synovial bursæ. The simple bursæ do not connect with any joint and are especially favorably situated for surgical interference. The bursa over the patella is the one most often enlarged and from the fact that the swelling usually occurs in women it is frequently spoken of as the "housemaid's knee." An enlargement of the bursa over the olecranon process is

known as "miner's elbow" from its frequent occurrence in miners. When the bursa between the skin and the tuberosity of the ischium is enlarged it is sometimes spoken of as the "weaver's or coachman's bottom" from its frequency in those classes. Another location which is liable to bursal swelling is the acromial region. Wherever, however, there is undue and prolonged pressure, as in cases of talipes, a bursal swelling will form. A bunion is a combination, and a very unpleasant one at that, of a corn and a bursal inflammation at the inner aspect of the metacarpo-phalangeal articulation of the great toe.

The synovial or subtendinous bursæ are found under almost every large muscle or tendon where it passes over a bone or at its origin or insertion into the bone. The largest is placed between the gluteus maximus and the great trochanter and when inflamed may give rise to symptoms simulating hip disease. Dr. Gibney, in his work on the hip devotes a chapter to this and other bursæ around the hip joint. The bursæ behind the knee-joint are especially liable to communicate with the joint, hence any operative interference should not be undertaken except for urgent reasons. There are, normally, synovial sacs between the two heads of the gastrocnemius and the bone, between the biceps cruris and the external lateral ligament, between the semimembranosus and the inner tuberosity of the tibia. The bursa between the ligamentum patellæ and the tibia from its exposed situation is especially liable to become inflamed. Another bursa which occasionally inflames, lies between the tendo achilles and the calcaneum. In the upper extremity the most important bursæ are those under the deltoid and that between the insertion of the biceps and radial tubercle. I shall have nothing farther to add in regard to these periarticular bursæ which may communicate with their respective joints, except that topical treatment, as rest, the application of splints and blistering or counter-irritation, should be faithfully tried before injections, setons or excisions are employed.

I desire to devote the rest of this paper to the consideration of some cases of "housemaid's knee" and simple ganglion. Enlargement of the prepatellar bursa generally occurs in women who are obliged to be upon their knees a great deal in scrubbing and other kneeling avocations. Of the cases coming under my observation all were in women with one exception, that of a carpenter, whose occupation would compel him to press upon the bursa whilst sawing. In this case a large hygroma or thin walled sac containing fluid occupied the position of this bursa. As the man could not spare the time for treatment I simply drew off the fluid with a cannla and it soon refilled. The sac should have been injected with tr. iodine or pure carbolic acid, as is done for hydrocele. Gross and Agnew speak highly of the use of the seton in the treatment of this form of bursal swelling, as does Bryant also. When the sac is thicker and contains fibrinous bodies, the above means may be used, but there is some danger of producing sloughing, and it would be better probably to puncture the cyst and squeeze out these bodies before injecting the sac. Under antiseptic precautions there would be little or no danger in making a free incision into the bursa and packing the cavity with gauze. When the walls have become so thickened as to form apparently solid tumors, nothing remains to be done except excision. I have had four cases of housemaid's knee requiring complete excision of the sac. In July, 1882, there was admitted into the University Hospital a young colored woman with a lipoma of the buttock and a hard, apparently solid tumor over the patella. This swellling on the knee gave no evidence of having ever been cystic, and was interfering with the pursuit of the woman, who was a chambermaid. I removed both tumors. The bursal swelling was about the size of a hen's egg, and was intimately connected with the overlying and subjacent tissues. The knee-joint was not opened and the patient made a speedy recovery and has had no further return of the trouble about the knees since. The walls of the

cyst were very thick but there was a small cavity containing serum and a fatty substance.

My next case occurred in July, 1885 at Bay View, presenting pretty much the same appearance as the first. The patient was a white girl. The incision healed by the first intention. This swelling was also very hard, apparently solid, but contained a cavity with serous and oleaginous contents.

My next two cases occurred in the same person, a middle-aged colored woman, with a swelling on each knee. For many years she had observed a swelling over each knee, and several years ago she fell and injured the right knee, which was followed by ulceration and discharge. In June, 1888, she applied to me for treatment. A hard, apparently solid swelling existed over the right patella. The skin was infiltrated and in three places ulcerated, from which ulcerations clear fluid could be expressed. The general appearance was that of a tuberculous ulceration. The growth was nearly as large as a hen's egg. On the left side was a smaller growth, hard, non-suppurating and without ulceration or infiltration of the skin. Each lump was excised, the one on the right knee was very thick, almost cicatricial in character, but contained a cavity filled with a pultaceous mass and some fluid. On the left side the lump was quite solid, no cavity being found. The wounds healed promptly and the patient has had no further pain or discomfort, and returned to her work which she had been compelled to give up. These two conditions illustrate 1st. that injured and inflamed bursal sacs are likely to suppurate and to cause prolonged inflammation and ulceration of the periarticular tissues, with sinusses, and 2nd. that in rare instances the deposition of fibrin continues until the whole cavity is obliterated, leaving a firm, solid tumor which interferes with kneeling.

SIMPLE GANGLION.

A ganglion is an affection somewhat similar in character to a bursal tumor. It is spoken of as being a bursal swelling in connection with the sheath of a tendon. As a matter of fact they are hernial protrusions from the sheath of a tendon, and resemble aneurisms in their manner of growth and development. They are generally found on the posterior or anterior aspect of the wrist of women who are accustomed to wringing clothes. They may be found on the dorsum of the foot. They are usually not larger than a hickory nut and may be soft or hard. The contents are sometimes glairy synovial secretion, in others a jelly-like substance, in others the rice and melon seed bodies are found. Sometimes the ganglion may be made to disappear by painting with iodine or by pressure, but usually it is necessary to rupture the cyst and allow the contents to escape. This rupture is best effected by thumb pressure. I consider the violent rupture by striking it with a book or other hard body as rude, painful and improper; if the cyst does not yield to strong thumb pressure, the subcutaneous puncture with a narrow tenotome, and the division of the sac in several places, thereby letting the contents out into the tissues should be preferred. After all these operative proceedures the hand should be fixed on a splint, and direct pressure made on the collapsed sac. The insertion of a seton is mentioned as a valuable method of treatment, also the scratching of the walls of the cyst with a needle. Excision of the sac may be done, but is considered dangerous. Under antiseptic precautions I think there is almost no risk in excising the tumor. I have usually succeeded in rupturing the ganglion with thumb pressure, but in one case failing by this means, I twice punctured the sac and pressed out the jelly-like contents, and attempted to cut the sac in several directions in order to destroy it, but without success, the cyst reformed. I then excised the cyst exposing the tendon, and had no further trouble, the healing being quite without any untoward circumstances. I would recommend then, thumb pressure to rupture the sac, if possible, otherwise subcutaneous puncture, with pressing out of the contents of the cyst, the puncture into the sac being made in several different

directions. If these fail, the excision of the sac under antiseptic precautions.

1 Mt. Royal Terrace.

A CASE OF EXTREME ARTERIAL ATHEROMA.

BY H. J. BERKLEY, M. D.,
OF BALTIMORE.

During the evening of the 13th of December, I was called to see K. W. White, a woman of sixty, who for many years previous had been subject to epileptic seizures. She had been alone when the attack occurred and only the circumstances of her failing to arouse herself as usual caused a physician to be summoned. What length of time she had lain insensible no one knew. The patient, I learned was a chronic dram-drinker.

On examination I found the woman lying in bed breathing stertorously, the cheeks drawn in and out with each inspiration and expiration, with all the members in a state of resolution. She was partly comatose, though when spoken to very loudly or shaken, she gave slight evidence of consciousness in attempting to answer questions. The pupils were normal, neither contracted nor dilated and acted very feebly to light. I may here add that this pupillary state persisted during her entire illness, the ciliary muscles relaxing only an hour or two before death. Slight muscular twitchings were present, much more marked on the right than on the left side of the body, on the latter there was mere fibrillary trembling. No facial paralysis could be made out, and the tongue could not be protruded on account of the patient's insensibility.

Examination of the thorax revealed an immensely hypertrophied heart; the apex could be felt beating about half an inch to the outside of the nipple line, and in addition there was a well marked systolic murmur, best heard directly over the apex and continuing into the first silence. No carotid pulsation could be observed. The radial artery felt hard but not more so than in many old persons. The pulse was sledge-hammer and intermittent.

By the time of my visit next morning well marked paralysis of the entire left side had developed, and consciousnes had imperfectly returned. The patient would answer "yes" or "no" as to whether she wanted food or drink or not, and if asked to put forth her tongue would attempt to do so though unsuccessfully, the organ trembling violently. No reliable tests of sensation could be made, the mental condition of the sufferer being too obtuse to permit it. The attendant reports that in the early morning the patient had several general convulsions. The eyes maintain their normal position. There is no difference to be detected by the hand in the temperature of the two sides of the body, and no vaso-motor changes can be seen. There is incontinence of both urine and feces. No improvement ever took place and the patient died on the evening of the fourth day of her illness, from gradual failure of both circulation and respiration. Towards the end hypostatic congestion of both lungs occurred.

Autopsy 20 hours after death. Rigor mortis slight. No emaciation present. Pupils slightly dilated. The skull was symmetrical. Dura mater deeply injected. A very slight capillary hæmorrhage had taken place around an enlarged pacchionian body near the longitudinal sinus. In attempting to cut the internal carotids, in removing the brain from the skull, great resistance was felt, and it was only by using considerable force that the arteries could be divided. The basilar artery was also very atheromatous, though not so greatly so as the carotids. At the base of the brain some slight serous effusion was seen inconsiderable in amount, but when the tentorium cerebelli was cut a large quantity, about a fluid ounce and a-half, gushed forth clear and limpid without lymph flakes or blood. Further examination of the arteries showed the same atheromatous degeneration so well marked that even in the smallest arteries visible to the eye it could yet distinctly be made out.

Sections of the brain were made from before backward at intervals of half inch. The left hemisphere presented no abnormality except the above mentioned atheromatous vessels. In the right hemisphere hæmorrhage had occurred apparently from some of the external arteries of the lenticular ganglion. The hæmorrhagic effusion had extended both anteriorly and posteriorly completely seperating the ganglion from the white and gray matter. The cerebellum and pons were macroscopically normal.

Thoracic viscera. Several hæmorrhagic impaections were to be seen beneath the pleurae, on the surface of the lungs, one or two as large as a pigeon's egg. These tumors on being divided grated under the knife and consisted of a hard putty-like substance of a grayish color. Ridged vessels could be felt throughout every part of the lungs. The organs themselves were highly injected. The pericardium was healthy. The heart was much hypertrophied, but to a much greater degree on the right than on the left side. The coronary arteries were ridged and the aorta was divided with difficulty. The pulmonary artery was even more bony than the aorta, and around its larger ramifications were apoplectic clots, some old, others of more recent date. The aortic valves were atheromatous but only slightly so and closed perfectly. The mitral valves were covered with calcareous plates which glistened in the light, and were insufficient. It was on the right side however, that the greatest degeneration existed, three-fourths of the ring of the auriculo-ventricular orifice was surrounded by a calcareous formation, one-third of an inch in thickness: the valves were thickened and slightly atheromatous. The aorta was throughout its course as ridged as a wooden tube, and its branches to the different viscera were in the same state; that to the left kidney being completely occluded, and looked exactly like the cancellated tissue of the ribs, though the kidney itself did not appear to be much more atrophied than its fellow; well marked senile changes being present in both. In many of the larger arteries long yellow coagula were seen notably at the bifurcation of the abdominal aorta extending into both iliacs. The lesser arteries of the limbs though much diseased did not present the extreme degree as the aorta and its branches.

The muscular twitchings previously mentioned are a symptom that is passed unnoticed in the standard literature on the semiology of cerebral apoplexy. It is somewhat curious that the contractions were strongest on the side corresponding to the hemisphere in which the hæmorrhage took place.

Microscopical examination. The vessels of the pia mater show an intense endarteritis with great proliferation of nuclei. The arterioles of the white and gray substances have the same changes. The capillaries are distended with red blood disks, their walls being normal. There are no alterations in the sheaths of the veins. A portion of the cortex from a frontal convolution gave the following changes: a very apparent dilitation of the pericelular spaces not confined to any single layer. The vast majority of the cells are clearly defined, with distinct nuclei and nucleoli, a few cells are however, infiltrated with abundant pigment deposit. There are a good many lacunae scattered through the subcortical tissue, and neuroglia cells are much more frequently met with than in the normal brain. No anomaly could be met with in the medullated nerve fibres.

In the corpus striatum the inflammatory state of the arterioles is well marked, and a few miliary aneurisms were discovered, while several minute hæmorrhages had occurred, distending the perivascular sheath, and infiltrating into the surrounding tissues. Numerous perivascular spaces contained masses of leucocytes, and all the capillaries were congested to a high degree. The ganglion cells are for the most part normal, maculæ are frequent. There is no apparent alteration in the neuroglia.

In the optic thalamus the vascular changes are identical with those in the corpus striatum. A few amgloid corpuscles are seen scattered here and there. A number of the ganglion cells have undergone complete granular degeneration,

others stain faintly with carmine, but the largest proportion are natural. The pericellular spaces in the ganglion are not enlarged.

1303 Park Avenue.

INSANITY AND ALLIED AFFECTIONS.

BY ALEXANDER L. HODGDON, M. D.,
OF BALTIMORE.

MELANCHOLIA.

Definition: Melancholia is a form of mental disease characterized by mental depression, very frequently with a tendency to commit suicide and with symptoms pointing in many cases to hepatic trouble.

Causes: In very many cases I believe the cause may be found to a great extent in the liver, while in many other cases no appreciable cause can be found, An insane heredity probably plays an important part in the way of imparting a predisposition to this disease. Various extreme disturbances of the equipoise of the nervous system of such a subject may precipitate an attack. There would seem to be in some subjects a certain condition of the nerve centres predisposing them to attacks of melancholia.

Course, Duration and Termination: A case of melancholia could hardly be considered chronic before the expiration of a year, nor could all cases of more than a year's duration be assigned to the chronic form of the disease. Melancholia may either go on gradually towards improvement or may tend towards the chronic form of the disease or terminate in dementia.

Prognosis: If the disease occurs in an acute form in a young subject the prognosis under treatment in many cases is good, and even the aged may recover from this disease.

Diagnosis: The mental depression, the hepatic symptoms and tendency to suicide very often manifested, tend to separate this form of disease from any other kind of mental disorder.

Symptoms: The symptoms are many, of which the tendency to mental depression is among the most important. Many delusions may be present. Dr. Clouston, Superintendent of the Royal Edinburg Asylum for the Insane,* says: "The following are actual examples of delusions of about one hundred female melancholia patients, and they are far from exhausting the list.

Delusions of general persecution.
" general suspicion.
" being poisoned.
" being killed.
" being conspired against.
" being defrauded.
" being preached against in church.
" being pregnant.
" being destitute.
" being followed by the police.
" being very wicked.
" impending death.
" impending calamity.
" the soul being lost.
" having no stomach.
" having no inside.
" having a bone in the throat.
" Having lost much money.
" being unfit to live.
" that she will not recover.
" that she is to be murdered.
" that she is to be boiled alive.
" that she is to be starved.
" that the flesh is boiling.
" that the head is severed from the body.
" that children are burning.
" that murders take place around.
" that it is wrong to take food.
" being in hell.
" being tempted of the devil.
" having committed an unpardonable sin.
" unseen agencies working.
" her own identity.
" being on fire.
" having neither stomach nor brains.
" being covered with vermin,

*Mental Diseases. Clouston, 1884.

Delusions of letters being written about her.
" property being stolen.
" her children being killed.
" having committed theft.
" the legs being made of glass.
" having horns on the head.
" being chloroformed.
" having committed murder.
" fear of being hanged.
" being called names by persons.
" being acted on by spirits.
" being a man.
" the body being transformed.
" insects coming from the body.
" rape being practised on her.
" having venereal disease.
" being a fish.
" being dead.
" having committed suicide of the soul."

A patient who was being treated by a physician in the South and whom I was called upon to see in consultation some time ago believed that "God had forsaken her," and yet, strange to say, attempted to commit suicide. There may be marked symptoms pointing to involvement of the liver.

Treatment: A patient suffering from melancholia should always be carefully watched lest he manifest some suicidal tendencies. Some of the most important—I think I can say *the most* important of remedies in melancholia are *good fattening food and exercise in the fresh air.* If a melancholic patient begins to take on flesh it is generally a very good sign, and if a person who has had one attack of the disease or who has an hereditary tendency to melancholia should begin to lose flesh then be on your guard lest he have an outbreak of the same. Persons suffering from melancholia who persist in talking on the subject of their delusion should not be contradicted, neither should one agree with them, but if possible try to turn the conversation into some pleasant channel. Strychnia, iron, phosphorus and quinine in proper doses are all appropriate remedies in this disease, and all tonic remedies may be indicated in their proper doses. I have treated successfully a case of hepatic melancholia by dusting the skin over the region of the liver with flour and then applying the wire brush from a faradic battery over that portion and producing in that way counter irritation. The skin, from being of a muddy hue, cleared up beautifully. I used in this case other treatment besides applying the faradic current. Attention should be paid to the state of the bowels and drugs to act on the liver may be at times given to advantage.

DEMENTIA.

Definition: Dementia is a general breakdown of the higher mental faculties, associated at times with aphasia, and may occur in youth, middle age or in the aged.

Causes: The disease may arise primarily, apparently due to no known cause, or secondarily as a sequel to insanity.

Course, Duration and Termination: The course of dementia, if it does not tend toward recovery is apt to run steadily towards the final extermination of the higher mental faculties and to terminate only with the death of the individual affected.

Diagnosis: The appearance and manners of a person suffering from this disease are so different from those of individuals afflicted with other forms of mental disease that it could hardly be mistaken for any other form of mental trouble. It might be well, however, to mention that the disease may be complicated with aphasia, and the two diseases must not be confused simply on account of their association.

Prognosis: The final termination of the disease rests largely on the age of the patient. In the young a favorable termination may at times be looked for, especially if suitable treatment be adopted. In the aged the prognosis is extremely bad, the disease is apt to go on from bad to worse until finally the

higher mental faculties may be totally annihilated.

Symptoms: The disease may come on slowly, progressing by gradual exacerbation and remission, each exacerbation proving more formidable than the preceding one. Another mode of onset is that which takes place suddenly, the patient being well the evening before, the next morning a dement. A case of this latter kind has lately come under my observation, having been called to see it in consultation with the physician in attendance. The disease manifested itself very suddenly. The patient, from being a perfectly sane man, in a few hours, owing to some business trouble, became a typical dement. The man was about fifty-five years of age, and strangely enough his father before him became affected with some form of mental trouble when he was about his age and finally died in an asylum. The dement in the advanced stage of the disease mixes nearly all the words in the dictionary he can think of together indiscriminately. I have seen an aphasic dement who seemed to use some particular word, e. g. " barn," and it seemed that whenever he could not think of the word he wished to use that he would use "barn" in place of that word. They seem to be very much like young children in their behavior. The dement walks around, eats, sleeps and drinks and his existence seems to become more on the order of the vegetable than that of the human being.

Treatment: The treatment of dementia is not apt to be of a very encouraging nature. However, our treatment of these cases of apparently hopeless dementia should be vigorously pursued, for although the cases occurring in old age are apparently hopeless, as far as complete recovery is concerned, yet simply because this is so at present we should not relax our efforts, as we do not know what may be accomplished by the onward strides of medical science. Strychnia and phosphorus in appropriate doses are indicated and electricity may prove beneficial in many cases. Probably all of the tonic remedies are useful in this disease. Exercise in the open air, good nourishing food and attention to the state of the bowels should not be neglected. Finally, perseverance in the treatment of the disease may result in the restoration to health of some apparently hopeless cases.

1235 Lafayette Avenue, Baltimore.

Society Reports.

BALTIMORE ACADEMY OF MEDICINE.

STATED MEETING HELD JUNE 4TH, 1889.

The 166th meeting of the Baltimore Academy of Medicine was called to order by the President, Dr. Henry M. Wilson, in the chair.

Dr. J. E. Michael exhibited a patient, an adult male, in whom he had wired

AN OLD FRACTURE OF THE PATELLA.

He said he did not favor wiring of the patella in recent fracture because the method of extension and rest gives generally a successful result, without exposing the patient to the dangers which may attend this method. He had some years ago a case similar to that exhibited, in which the fracture was caused by muscular force. It failed to unite and he wired it, the patient recovering with a useful limb. The fracture in the present instance was also caused by muscular force. The patient was recovering nicely by extension and rest, but used the leg too soon. When Dr. Michael saw him his limb was like an artificial limb with a chock joint, the patient not being able to make the patellar ligaments tense. After explaining to the patient the dangers and the advantages of the operation he obtained his consent and operated. The leg was scoured with soap and water and then wrapped for several hours before the operation with cloths soaked in 1 to 1000 bichloride solution. The operation was done under irrigation, with ' bichloride solution. When opened, the joint was in rather a

a bad condition, the ligaments being very lax. He smoothed off the rough ends of the patella. They would not meet, so he notched the ligamentum patellæ and also the quadriceps tendon. Holes were then bored into the ends with a drill and the parts were fastened together with six or eight strands of strong suture-wire. The capsule was then sewed with catgut and the opening in the skin was closed with a continuous suture. No drainage was used. The wound was closed antiseptically and healed by first intention. The union between the halves of the bone is fibrous, and the pieces can be moved a little upon each other. The wire cannot be distinctly located by the touch. The patient can extend the knee-joint completely, and though he can flex it but slightly, yet his power of flexion is as great as that of the former patient at this stage. The interest of the case centres in the successful opening of the knee-joint and its subsequent healing without suppuration. The case promises to end very successfully.

In reply to a question he said that he did not expect any trouble from the silver sutures, which would become encapsuled.

Dr. J. J. Chisolm said that in 1859 he devised a method for permanent cure of hernia and used it successfully. According to this method he sutured the tissues with silver wire and left it in. It gave him no trouble afterwards, the parts healing over the wire.

Dr. J. E. Michael said that some time ago, in a case of ventral hernia, he sewed up the ring in the belly wall with wire and clamped the sutures with shot, sewing up the skin afterwards. The inner sutures remained and gave no trouble, He thought that the irritation caused by the wires would give rise to a deposit of dense fibrous tissue about them, and that this dense tissue would form strong bands, uniting very firmly the edges of the ring through which the hernia had come. At any rate he obtained a good result.

Dr. J. R. Uhler thought that this safe opening of the knee-joint showed beautifully the triumph of modern surgery. In our civil war legs were generally amputated when bullets penetrated the knee-joint. We ought to get a closer bony union of the fractured patella. It is strange that we do not. He said that if he ever had another case of fractured patella to treat he would take a wire of sufficient size and make a thread on one end, then passing it through holes bored in the fractured parts he would place a nut upon the end which bore the thread and screw up the nut till close union was secured.

Dr. J. E. Michael then related a case of

ROUND CELLED SARCOMA OF THE TESTICLE.

The tumor was as large as a man's head. It began three years ago in the scrotum and grew upward. It had overgrown the cord, which seemed not to be enlarged. There was no resonance on percussion. Telling the patient, who was about 63 years old, the danger, he operated and removed the whole tumor. The sarcomatous development extended two inches above the abdominal ring alongside of the cord but not involving it. He found no metastatic abdominal growths. The man got well.

Dr. B. B. Browne related two cases of

CYST OF THE LABIA MINORA.

They are very rarely observed. Both were on the right side, about the size of a hen's egg, and freely movable. Both contained fluid of a thick gellatinous character. The lining membrane of the cysts was, he thinks, serous. The cavity extended in the direction of the round ligament towards the cornu of the uterus. One of them he opened several times, and, as it refilled each time he finally took out a part of the cyst wall and injected the cyst with iodine, producing a cure. The other he could not, on account of the patient's circumstances, treat so radically. After opening it several successive times, he at length cut out a part of its wall, including both serous and mucous surfaces, and it has not yet refilled.

The cysts followed the round ligament above, but not below. Both patients were colored women.

Dr. J. R. Uhler said that he once helped to enucleate a tumor of the labium minus in a Jewess. It was hard and contained a sort of serous fluid with some blood, and in one corner was granulation tissue.

Dr. B. B. Browne said that as the cavity of his cysts extended as far up as the cornu of the uterus he did not think proper to dissect the cysts out.

The Academy then went into election for officers for the ensuing year, choosing for

President, Dr. G. W. Miltenberger.

Vice-Presidents, Drs. P. H. Reichs and C. C. Bombaugh.

Treasurer, Dr. G. Lane Taneyhill.

Reporting Secretary, Dr. Wm. B. Canfield.

Recording Secretary, Dr. A. K. Bond.

Executive Committee, Drs. P. C. Williams, B. B. Browne and John G. Jay. The Academy then adjourned.

A. K. Bond, M. D.

Reporting Secretary pro. tem.

Correspondence.

LONDON LETTER.

London, June 14, 1889.

Editor Maryland Medical Journal:

This old town is conservative and I find few changes in the last ten years. If there are new and modern hospitals I have not discovered them. Medical men still speak of St. Thomas' as the newest and best, and ten years ago I remember the regrets expressed that they did not have sufficient money to open all the wards. The same is true to-day. In consequence of this they have only accommodation for about four hundred patients. I had the pleasure of going through the medical school of St. Thomas' this morning under the guidance of Mr. Shattock, the curator of the museum. The teaching facilities of this, the second largest medical school of London, are very great. The museums for instance are arranged with special reference to teaching and selections are made from the pathological department of all of what might be called pathological types, and with these the student is expected to familiarize himself. The materia medica museum is very complete, and here also a department is set aside where the students have an opportunity to see, handle, and if they desire, taste all the commoner drugs. The course, I might add, is a graded one and extends over four years.

Through the kindness of my friend, Mr. Roger Williams, F. R. C. S., I was introduced and attended a very interesting meeting of the pathological society. This society has its own comfortable building, with the usual accompaniment of library, museum, cloak-room, etc. There were present sixty-six members. Six or eight short papers were read and the discussions were brief but to the point, though it must be admitted that the English medical men as a rule, are not good speakers. In two large adjoining rooms there were exhibited twenty-three pathological specimens and forty-six microscopes with slides, all illustrating something new or interesting. I was told, however, that that particular meeting was rather better than usual.

I have also had the pleasure of attending a reception, or conversazione, at the college of surgeons. Their magnificent building was thrown open to the fellows and their friends of both sexes, from 9 to 12. Refreshments were served in the library and two bands of music played selections alternately in different wings of the great museum. During the evening Prof. Muybridge, gave a talk on and exhibited, by projecting on a screen, his well-known instantaneous photographs, showing animals and birds in motion. This work was done by him under the auspices of the University of Penn. and due credit was given to that institution. They were very well received. It was a very swell entertain-

ment and quite worthy of the Royal College of Surgeons. All the great guns of the London medical world were present, many of them wearing several decorations, which took away a great deal from the monotony of the regulation evening dress. Of course it is impossible to say what per cent. of the handsomely dressed ladies present were wives and daughters of medical men. Without doubt the majority were. I will only say that the impression these latter made was far from unfavorable.

In regard to the clinics I will only say that the supply of material seems everywhere superabundant. Patients, however, as a rule, are well treated. Antiseptic methods are everywhere in use and more or less perfectly carried out. I have, naturally, seen more clinics on ophthalmology than on anything else. The opthalmic surgery is good. In manual dexterity the London oculists do not compare with the French or American. Critchett is the only really good operator I have seen. I may mention that he uses no speculum when operating for iridectomy or extraction of cataract. Except Mr. Henry Posner all the oculists here make an iridectomy in operating for cataract. I have asked several of the younger, active, hard-working medical men who are filling junior positions about the hospitals, why they do not get up a poliklinik and post graduate school, such as have been successful in New York and Vienna. Such a scheme would undoubtedly draw to London most of the Americans who now go to the continent and who would not be hampered by a foreign language. At present, however, the facilities for post-graduate study in London are not to be compared with those of Berlin, Vienna or Paris. I mention these three cities in the order in which I would give them preference for the general student, taking all things into consideration. I leave for Paris the 15th of June and will endeavor to find time for a hasty letter from that capital.

Truly yours,

HERBERT HARLAN.

BROWN-SEQUARD ELIXIR.

————————, Aug. 15, 1889.

————————, M. D.

DEAR SIR: Please excuse me for troubling you in this way, but having seen so many wonderful cures in papers effected by Elixir of Life, discovered by Brown-Séquard, I write to ask if, in your opinion, I can prudently try the same experiment. Hoping that you will excuse this presumption on my part. Please reply at once.

I am yours with respect,

———— ————————.

[From a young lady out of town to a prominent physician of Baltimore.—Ed.]

TETANUS.—The subject of the pathology of tetanus has been greatly discussed at the Paris Academy of Medicine during the present year. It was further dealt with at a recent congress held at the Sorbonne, in a paper by M. Guelpa, who gave the results arrived at by himself and M. Weber (*L' Union Médicale*, No. 79). These are: 1. That tetanus is an infective disease. 2. There is no rheumatic tetanus in the true sense of the word. 3. The tetanic phenomena are not the direct effect of the microbe or microbes, but of toxic agents assisted by these. 4. The microbic multiplication remains confined to the site of entrance of the infection, at any rate during the first symptoms; it being only later, and that but rarely (6 per cent. according to Rosenbach), that any generalization of the organisms within the body takes place. Treatment, the authors add, should aim at (*a*) the destruction of the bacillary focus; (*b.*) the elimination from the organism of the products of the pathogenic microbe; and (*c*) calming the nervous system—e. g., by chloral. They further say that the consumption of meat from tetanic animals should be absolutely forbidden.—*Lancet.*

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BALTIMORE, AUGUST 24, 1889.

Editorial.

ON THE DISPOSAL OF THE SPUTA IN PHTHISIS.

It is curious in following out the history of the attempt at cure and prevention of phthisis, to notice that the former has always occupied the most important place, while prevention was little thought of. Now the whole civilized world is gradually awakening to the idea that, despite rose-colored reports and vaunted specifics, consumption must as yet be ranked among the incurable diseases, and hence, even if we cannot cure, we can attempt to prevent. Prevention is supposed to be better than cure, in fact twelve to sixteen times better if we should accept the proverb literally. Here cure has been tried in various ways and as a last resort these attempts at cure failing, prevention is thought of and now seven years after the discovery of the tubercle bacillus and its recognition as the cause of consumption, enlightened medical men are just beginning to appreciate the fact that the more these bacilli can be destroyed and rendered harmless, the less chances there are for the spread of a disease which is now acknowledged to be contagious.

The recent report of the New York pathologists and the action of the New York Board of Health, in publishing a series of rules to be observed for the prevention of consumption, tend to show that union of intelligent action on the part of intelligent nurses, laymen and others will certainly have a wonderful effect in time, in reducing materially the mortality from consumption.

The principal point is to treat everything that comes from a consumptive patient in such a way that bacilli and spores shall be destroyed, and as the most bacilli are to be found in the sputa, it is a very important question how to dispose of this excretion. Many busy physicians and careless nurses will fail to carry out a large number of tedious rules, while they will not hesitate to mind one or two. Therefore if we can impress upon our consumptive patients and their attendants, the importance of rendering the sputa harmless, we shall do much toward diminishing the chances of contagion. As far as possible all sputa should be collected in small paper or pasteboard cups which can easily be made by a member of the family, or by the patients themselves, and such cups should be burned when partly filled. The infected linen if subjected to pro-

longed boiling with an alkali may be used again. Common sense in general directions, with much faith in fire and prolonged boiling as a destroyer of the bacilli and their germs, should be the principal rules in dealing with consumptives.

Miscellany.

The Administration of Chloroform by Gas-Light.—As is well known, it has been the practice to avoid the use of ether for anæsthetic work if artificial light is needed, whenever there is fear lest the ether vapour mixed with air be heated sufficiently to explode. The heavier vapour of chloroform, in addition to not being liable to form an explosive mixture with common air, is far less inflammable,and so has been hitherto regarded as a safe anæsthetic in such cases, at least as far as dangers from fire are concerned. Recent researches undertaken by Dr. Iterson, however, seem to show that chloroform vapour, when allowed to mix with the products of combustion of ordinary coal gas, undergoes decomposition and liberates gases of a most irritating nature. Dr. Iterson believes death has been brought about in one case at least by inhaling these noxious vapors, and recounts other instances in which alarming symptons have supervened. One patient, although apparently but little affected while inhaling the chloroform, became painfully dyspnœic afterwards, gasping and evincing the usual symptoms of asphyxia due to irritant vapours. These alarming effects passed off when the windows were thrown open and the fumes of coal-gas combustion and chloroform were permitted to escape. It is well known that samples of chloroform which have been kept exposed to diffused light will after a while become contaminated with substances, which possess most irritating properties; but until Dr. Iterson's warning arrived, we were not aware that chloroform vapour would, when diffused in the air of a room or operating theatre be decomposed in passing over a jet of ignited coal-gas. We know that, heated to redness, chloroform splits up into hydrochloric acid, chlorine, and other products, including the trichloride of carbon; and both Soubeiran and Liebig have pointed out that, although chloroform vapour cannot be ignited in the air, it will if passed over a spirit-lamp flame, burn, and liberate irritating vapours. The question as to the gases most probably formed, if the coal gas is capable of uniting with the products of chloroform decomposition, is too wide a one for us to enter upon; nor do we think that we need go farther than to say that, if Dr. Iterson's facts are to be taken without reservation the irritant bodies which exercised so deleterious an influence were, in all likelihood, the products of the ordinary decomposition of chloroform—namely, free chlorine, hydrochloric acid, and possibly other chlorides and ammoniacal compounds.—*Lancet.*

Local Application of Chloroform in Epididymitis.—Dr. Theodore Clemens, of Frankfort, in an interesting paper communicated to the *Allgemeine Medicinische Central Zeitung*, describes the great benefit he has obtained in cases of epididymitis, both specific and non-specific, by means of chloroform locally applied. He regards as most unsatisfactory the treatment of the affection by other methods as compared with his own, which he has employed now for a great many years. It consists in laying some cotton wool saturated with chloroform and spirit at the bottom of a large glass vessel, into which the genitals are then put and packed round with dry cotton wool, the buttocks and thighs forming a cover, this application being continued for from fifteen to twenty-five minutes, and repeated two or three times a day. Pathologically, he considers venous congestion of the epididymis and the cord through retention of semen a predisposing cause of the disease. He also considers epididymitis as very likely to occur when gonorrhœa has been contracted in excessive venery. He mentions a case of treatment by

chloroform thirty-six years ago, not of epididymitis, but of periodical "heat" occurring in the human subject. The man used to suffer periodically from a form of orchitis, during which the testes felt hot and swollen, and the plexus pampiniformis was full and turgescent like a varicocele. He was ordered the local application of chloroform three times a day, from fifteen to twenty-five minutes each time, but the first time he bore the chloroform for nearly thirty-five minutes, after which the pain of the severe attack completely ceased and the swelling considerably decreased. This treatment lasted three days, during which time he was able to walk about, the cotton wool which had been used for the chloroform being put into the suspensory bandage and the testes covered with it. After that both the swelling and sensibility disappeared. Another cases is mentioned, where epididymitis had been caused by the continuous pressure of a rudder handle on the hypogastrium, in which similar treatment proved entirely successful. Again, a class of case that is usually very difficult to treat —viz., that of gonorrhœal orchitis— seems to have proved fairly tractable when managed with the help of chloroform. Here one of the first signs of improvement was frequently the re-establishment of an old discharge, which was soon cured simultaneously with the epididymitis.—*Lancet.*

Arrested Development of the Genitals.—At the Leipzig Obstetrical Society, in January, 1889, Professor Sänger exhibited three instructive cases of this kind. In the first, pregnancy occurred although the vagina was congenitally closed. A transverse septum was found in the vagina; it bore a minute perforation sufficient, as facts proved, to allow of impregnation. In the second case the patient was aged 28, and single, no "show" had ever been seen, but from the age of 13 she had suffered from molimina, which grew more and more painful. The outer organs were normal; an oval septum of mucous membrane, quite impervious, lay in the place of the hymen. On examination under narcosis the uterus and vagina could not be detected. The ovaries could be felt, they were about the size of almonds. The patient in the third case was a woman of almost gigantic frame, and aged 26. Her figure and general conformation were perfectly feminine. For many years she had lived with her husband, a very powerful man. Neither menstrual flow nor "molimen" had ever been observed. The outer organs were infantile and without hair, the clitoris very small. The urethra was fissured posteriorly, and laterally enveloped in a pair of wattles formed of mucous membrane. An ill-developed crescentic hymen was detected. The perineum was short, and invested with mucous membrane close up to the anus. Above the hymen was a vaginal blind pouch one inch deep. No ovaries nor uterus could be detected on digital examination. The hypospadias was an interesting feature in this case.—*British Medical Journal.*

Treatment of the Nasal Mucous Membrane in Whooping-Cough.—Several physicians, believing that the paroxysms of whooping-cough are to a greater or less extent due to reflexes from the nasal mucous membrane, have directed their attention to it with regard to the treatment of the disease. Dr. Beltz, who has conducted a large number of observations on the treatment of whooping-cough in the Greifswald polyclinic, speaks especially highly of a plan first practised by Michael, which consists of employing nasal insufflations of a mixture of powdered nitrate of silver with magnesia in the proportion of 1 in 10. These insufflations are given at first once a day, and subsequently once in two or three days according to the frequency and severity of the attacks. He finds that the attacks are very decidedly lessened even after the first insufflation, and has come to the conclusion that this affords a more satisfactory method of treating whooping-cough than any other plan with which he is acquainted.—*Lancet.*

Spontaneous Rupture of the Heart.—Dr. Mallet, of Paris, described before

the Société Anatomique of that city a case of this accident which occurred last May in the Hôpital Tenon. The patient was a man aged 79, with pulmonary disease. He died suddenly after rising to micturate. A rent, almost vertical and over two inches long, was discovered in the anterior aspect of the wall of the left ventricle. The pericardium was full of blood, the aorta atheromatous, and the left coronary artery nearly obliterated All the valves were normal. Dr. Mallet quotes Odriozola's statistics of spontaneous rupture of the heart. That observer could only collect 176 authentic cases. In many instances the patient was old, being between 60 and 70 in thirty-six, and between 70 and 80 in forty-five. The accident appears most frequent in women. As a rule, the escape of blood into the pericardium is considerable. The rent in the wall was unusually large in Dr. Mallet's case. In nearly every instance in Odriozola's statistics, the rupture was in the anterior part of the left ventricle. The original report of the case deserves study. The rupture apparently took place fifty three hours before death, when the patient was seized with dyspnœa and epileptiform convulsions marked in the upper extremities; his face turned pale. The exertion of rising to micturate caused immediate death, probably by sudden escape of blood into the pericardium. A similar history has been recorded in other cases of spontaneous rupture of the heart.—*British Medical Journal.*

Is the Bath Wholesome?—Nothing in human affairs has a reputation so fixed that it may not be called in question by some one in a moment of originality. This has happened repeatedly in the case of the daily bath. Some critics, for example, suggest that the bather, in consequence of his very cleanliness, lives too fast, is functionally too active, and that delayed and more gradual excretion would better accord with health. Others appear to think that by daily ablution the skin loses a part, or all, of the protection against weather, derived from its own effete products. Yet the bath not only continues to hold its own, but its popularity increases year by year. As regards amenity, both personal and relative, to one's neighbors, there can be no doubt that this is usually much assisted by a habit of regular bathing. Other advantages are not lacking. Among these are, when cold water is used, the invigorating exercise of the nervous and circulating systems, the resistence to weather changes, and the tonicity of skin engendered by immersion. Further, it is undeniable that the non-removal of effete matters from the body imposes a most unwholesome check upon waste excretion in deeper tissues. It is said that some savage races maintain a robust life in spite of personal uncleanliness; but these tribes, it must be remembered, are exceptionally favored in regard to fresh air and exercise. It is probable, also, that even they do not thrive as they should, and would, under purer conditions. For civilized men of sedentary habits, the advantage of possessing a clean and freely active skin is a virtual necessity of healthy existence. —*Lancet.*

The Kola Nut.—There has just been printed, by order of the Surgeon-General of Her Majesty's Forces, a report by Surgeon R. H. Firth, Medical Staff, on the dietetic and therapeutic value of the kola nut. The observations on which the report is based were made on English soldiers at the Mian Mir Camp of Exercise during January, 1889. The kola nut is largely used in the interior of northern Africa as a stimulant, and has been found to have the following percentage composition:—Caffeine 2.4, theobromine 0.02, water 11.9, proteids 6-7, starch 33.7, sugar 2.8, fats 0.68, tannin 1.6, coloring matter 3.7, cellulose 30, ash 65. As the result of a series of observations, Surgeon Firth has come to the following conclusions:—1. That kola nut is in no sense a food. 2. That in man it increases the total urinary water, with a slight reduction of its total solids, and a marked reduction of the extractives eliminated by the urine. Such action is probably due to its contained caffeine. It in no way affects the nitrogen output of the body. 3. That there is a

stimulant action on the nervous system, the heart-beat is temporarily strengthened, and the arterial tension increased. Taken continuously during times of exertion and fasting, it possesses some power of warding off the sense of mental or physical depression or exhaustion, this power not being, however, so marked as some observers have reported. 4. That it might be employed on service as an issue to troops in the form of broken up nuts, the same being issued with instructions that a piece be kept constantly in the mouth and chewed, and the saliva swallowed. 5. That as an infusion with milk and sugar; kola powder is an efficient substitute for tea or coffee, especially for those suffering from diarrhœa, owing to its astringency. 6. That as a therapeutic agent in the convalescence from long sickness, its value is not apparent. 7. That its alleged antagonistic action to alcoholic sequelæ is not capable of proof. 8. That as a purifier of water its action is purely mechanical, and not superior to many mucilaginous seeds. 9. That seeds from species of sterculia which contain no caffeine must be carefully excluded. 10. That continued mastication of the solid nut is the best way to take it.—*British Medical Journal.*

The Density of the Blood in Renal Disease.—Dr. Lloyd Jones, of St. Bartholomew's Hospital, who has devised a simple clinical method of estimating the specific gravity of the blood (*Journal of Physiology*, vol. viii.), contributes to the current issue of the *Practitioner* the results of some of his investigations in this direction. By comparison with several hæmocytometric numerations, he shows that, as might be expected, the specific gravity varies in proportion to the relative amount of corpuscles and plasma: and this being so, it suggests that in renal disease changes, in the specific gravity would be prone to occur. He therefore made a number of observations on the blood of cases of acute nephritis, chronic parenchymatous nephritis, and chronic interstitial nephritis. In the first the specific gravity was variable, being either normal or below the normal; in the second it was diminished in every case but one. But as regards chronic interstitial nephritis, he found that in the cases accompanied by gout the rule was for the specific gravity to be below the normal (average about 1051) whilst in those in which gout did not occur it was above the normal (average about 1058). Among these latter, however, the interesting fact was shown that in those dying from cerebral hæmorrhage the specific gravity was highest (average about 1060), and that the presence of such a condition in in a case of chronic interstitial nephritis is an index of the liability of the patient to cerebral hæmorrhage. Dr. Lloyd Jones argues that the tense pulse of acute renal disease is attributable to a non-excretion of water, causing an increase in the volume of blood, and further suggests that such an increase may occur in the early stages of granular kidney, and contribute to the cardiac hypertrophy and vascular changes, which in the latter stages suffice *per se* to explain the heightening of the blood-pressure.—*Lancet.*

Sodium Dithiosalicylate II.—Dr. H. Lindenborn, Frankfurt-am-Main Town Hospital, reports on this substance in a preliminary communication, and thinks it is destined to supplement salicylate of soda in the treatment of acute articular rheumatism. The dithiosalicylic acids Nos. I and II are two isomeric bodies, each of which consists of two molecules of salicylic acid linked together by two moleculesof sulphur. No. II (sodium salt) is a greyish-white powder, very hygroscopic, and easily soluble without residue in water. According to üppe, a 20 per cent. solution kills anthrax bacilli in forty-five minutes, in which time the ordinary salicylate has no perceptible effect; similarly with other bacteria. Four cases of polyarticular and one of monoarticular rheumatism were treated, also one of gonitis gonorrhoica complicated with irido-choroiditis; the dose was 0.2 gramme (3 gryins) morning and evening—oftener in the more severe cases. The slighter cases showed disappearance of joint-swelling, pain and fever in two days, the more severe cases

in six days. One case was a relapse after salicylate treatment; nausea and noises in the ears were complained of, severe sweating occurred only when 0.8 gramme (12 grains) were taken *pro die*. The last mentioned of the above cases was from another hospital, and the patient left, cured in ten days. The advantages of this drug over salicylic acid are: stronger action, therefore smaller doses; tolerance by the stomach (the insoluble dithio-salicylic acid is precipitated from the sodium salt in an acid solution); and absence of unpleasant after-effects.—*Brit-ish Medical Journal.*

The Art of Eating.—There is little if any doubt that cooking has been employed by man in the preparation of food from the remotest ages. It is probable also that empirical ideas of what conduces to comfort in diet early formed the basis of a gastronomic art not without some relation to physiological truth. It has been reserved for later times, however, and for civilized man, to discover and formulate a regular method of dining. By a process of natural selection, the work of elaborating this system has in great measure passed into the hands of our French neighbours, who have thus been able to develope an art characteristically their own. Our simpler national customs relating to the table have, in common with those of most other peoples, attracted less attention, though it is not likely that they will ever disappear. It is needless here, however, to discuss in detail each local peculiarity. We should rather aim at understanding those common principles which underlie all rightly constituted systems, and give to each its value as an aid to wholesome nutrition. The time of eating is a matter of no small consequence. This is to some extent subject to individual convenience, but we may take it that as a general rule not less than five hours should separate one meal from another. The short interval of rest usual after meals will commend itself as being in strict accordance with physiological necessity. The quantity and quality of food taken also require careful attention, and these again must be regulated by reference to the work to be done by a given person. Some difference of opinion has always existed as to the proper daily allowance of meat. We shall proba bly do justice to the digestive powers of most persons, however, by advising that only one substantial meat meal be taken daily. More than this would tend, if continued, to overload the tissues with digestive products, and less would hardly suffice for full nutrition. Drink, if alcoholic, should be sparingly taken, or not used at all. Cookery has in these days been elaborated almost to excess. Variety and delicacy are carried to an extreme, and we should probably gain rather than lose if plainness combined with care were adopted as our rule of practice in such matters.—*Lancet.*

Long Intervals Between Births of Twins.—Dr. Engström, of Helsingfors, describes in the *Finska Läkare sällskapets Handlingar*, January, 1889, three cases of twin labors, where the interval between the births of the twins was unusually long. In the first case the second child was not born till thirty hours after the first had been delivered. Uterine contractions had ceased, the membranes were ruptured, and the child, ten pounds in weight, was delivered by turning. In the second case the interval was twenty hours. The waters were fœtid, yet the second child, which weighed nine pounds, was delivered alive, by the aid of forceps. In the third instance the second child, weighing five pounds and a-half, was delivered twenty-six hours after the first. In all the above cases both twins were saved. An interval of even twelve hours is not frequent in twin deliveries.—*British Medical Journal.*

German Physicians and the Paris Exposition.—At a meeting of a Berlin society of retired medical men, not long since, a resolution was adopted calling upon German physicians to keep away from the Medical Congress to be held in Paris this summer. The members of this society were very promptly rebuked by the *Berliner klinische Wochenschrift* for their action, and the journal urged the

active members to take a part in the meetings, and to show that they did not allow political feeling to interfere with scientific progress. Some hot-headed Frenchmen were incensed when it was decided to hold the next International Congress in Berlin, but we believe they have since come to look at the matter in a calmer spirit, and it is hoped that the French representation at Berlin will be fully up to the average of that at previous congresses.—*Medical Record.*

Compound Fracture of the Tibia Treated by Wiring.—A case of compound comminuted fracture of the tibia, in which the fragments were successfully united by metallic suture, was recorded some months ago by Dr. J. B. Henrique, of Concepcion (Chili). The patient, a lad aged 17, had his left leg broken by a fall from his horse. "First aid" of a rough kind was given by those about him, the bones which projected being reduced more or less effectually by counter-extension, and a dressing of herbs applied. When first seen by Dr. Henrique, three days after the accident, the patient's general condition was very bad, while the wound in the leg, which was over the anterior border of the tibia, at the junction of the lower and middle thirds, was in a most unhealthy state. Dr. Henrique, however, determined to make an attempt to save the limb, and accordingly, after applying Esmarch's bandage, he enlarged the wound in the vertical direction, removing a large fragment of the tibia which lay loose in the cavity, and trimmed the corresponding ends of the upper and lower fragments with the saw, saving the periosteum as far as possible. Two holes were next drilled in each fragment, and strands of twisted silver wire passed from behind forwards, and crossed over the outer surface of the tibia in the shape of the letter X. A counter-opening was made in the calf, a drainage-tube inserted, and an antiseptic dressing applied. The limb was placed on a grooved splint, allowing access both to the wound and to the counter-opening. Fifty-three days after the operation, which took place on August 17th, consolidation was so firm that the limb could be raised by grasping the heel, or the latter raised by grasping the leg below the knee. The wound had not, however, entirely closed. On the extraction of a small fragment of bone and the removal of the sutures it healed up rapidly. At the date of the report (November 16th) the patient could bear on the injured limb when standing still, and there was every prospect of recovery without shortening or appreciable lameness.—*British Medical Journal.*

Indications for Iridectomy and Sclerotomy in Glaucoma.—Dr. Loshechnikoff, writing in an ophthalmological review, published at Kieff, gives a *resumé* of 284 sclerotomies performed by him while attached to the ophthalmic clinic in Moscow. The operation employed was Wecker and Mauthner's double sclerotomy. There were eight cases of acute-glaucoma, sixty-eight of chronic glaucoma from inflammation, ninety three of absolute glaucoma, seventy-one incipient, and eleven of simple glaucoma. To each series is added a table of effects on tension and sight. The effect is called "excellent" when T (tension) becomes normal, or less than normal, and central sight increases; "good" when T decreases and V (vision) remains the same; "medium" in cases of *status quo ante*, or when V is somewhat worse, but T decreased, or when there is a little improvement of V with permanent T; "bad" when V is worse and T permanent. In Table III., which deals with absolute and degenerative glaucoma, the author often says: "V improves," "V remains unaltered," though we are accustomed to use the expression "absolute," only in complete blindness from glaucoma. The author, however, claims for this series the best results, no less than 82 per cent. The following are some of his conclusion;—Iridectomy is indicated in chronic and subacute glaucoma. In absolute glaucoma, with symptoms of degeneration, sclerotomy is indicated. In acute glaucoma sclerotomy is a preliminary operation, to be followed generally by irridectomy. Sclerotomy is

for the sake of appearance preferable to irridectomy, and holds out better prospects for the improvement of sight. It is consequently indicated in incipient glaucoma. In simple glaucoma sclerotomy is preferable. In all case of imminent prolapse of the vitreous, and especially in congenital hydrophthalmus, sclerotomy is indicated. In secondary glaucoma iridectomy is always preferable. It is absolutely necessary to use eserine before sclerotomy.—*Lancet.*

Phthisis in Armies.—In his statistics of phthisis, Dr. R. Schmidt of Munich, (to whose observations on this subject we drew attention in the *Lancet* of the 6th inst.) states the number of cases in the English army at 11·8 and of deaths at 6·2 per 1000. We do not know from what source he has derived these ratios, or the period to which they refer; but as regards the last thirty years they are decidedly erroneous. In his "Manual of Practical Hygiene" (fourth edition, p. 371. 1873) Dr. Edmund Parkes says: "The deaths from phthisis and hæmoptysis in the eight years ending 1866 averaged 3·1 per 1000 of strength, the highest annual ratio being 3·86 and the lowest 1·95. In 1867–71 the mean mortality was 2·648 per 1000." With a view to ascertain whether any change has taken place in more recent years in the phthisical death rate of the army we have extracted from the Army Medical Reports the necessary information for the seven years 1879–85 inclusive. We have not included the two following years, as a change was made in the nomenclature and classification which might possibly affect the results. During these seven years the admissions into hospital for tubercular diseases in the whole army, at home and abroad, were 8·01, and the deaths 1·61 per 1000 of strength. On further analysing the figures, we find that the admissions and deaths by these diseases were: among the troops serving in the united kingdom, 9.36 and 2·04; in India 6·93 and 1·24, and at other stations abroad 6·23 and 1·03 per 1000 of strength. It is probable that Dr. Schmidt has obtained his figures from some of the earlier army reports, which date as far back as 1838, but the changes in our army during the last thirty years and the careful attention to sanitation on the part of the medical officers for a still longer period have had the effect of reducing the mortality by consumption in a very remarkable degree. It seems very desirable, in all comparisons of the nature of those made by Dr. Schmidt, that the period over which the statistical data extend should be clearly stated, as upon that may depend much of the present value of the observations.—*Lancet*

Passage of a Calculus by the Urethra. Dr. E Cueves, of Quirihue (Chili), relates a case in which a stone of somewhat unusual size was passed by the urethra. The patient was a man aged 80, who had suffered from symptoms of vesical calculus for twenty years. About two years before coming under notice he had observed that, when the flow of urine became obstructed, a hard body could be felt at the root of the penis behind the scrotum; this he had learned to force back, by manipulation, when the retention at once ceased By slow degrees the body came farther forwards till, when Dr. Cuevas saw the patient, it occupied a position about 2 centimètres behind the meatus. On that occasion there had been retention of urine for three days, and the man suffered intense agony. Dr. Cuevas succeeded in extracting the offending substance with small forceps; it proved to be a hard calculus, ovoid in shape, and flattened. It measured 22 millimètres in length, by 14 in the longest, and 11 in the shortest, diameter. Its greatest circumference was 55, and its least 40, millimètres. No chemical analysis of the stone was made.—*Brit. Medical Journal.*

The yellow fever scare in Brooklyn came at a particularly bad time for at least one of the principals—Dr. Bogert, who attended Dr. Duncan, the patient. The health officers quarantined Dr. Bogert, locking him up in a house, guarded by two policemen; where, according to private advices, he was perfectly furious, because at that very time he was looked for by a fair maid in Montreal whom he was to wed. It seems now that after all Dr. Bogert was right; the disease was simply remittent fever.

Medical Items.

A ram was succesfully cremated at the new crematory at Loudon Park.

The report that small pox has broken out at Vallombrosa is unfounded.

It is said that India contains a million and a half of lepers.

San Francisco is to have a second Polyclinic or dispensary.

Died in New York on August 12th Dr. Alexander B. Mott, age 63.

Professor Engler of Breslau has been appointed to the chair of Botany at Berlin.

Dr. Lewis A. Sayre has lately received a diploma of honorary membership in a St. Petersburg medical society.

Dr. J. J. Kindred has been elected resident physician at the Maryland General Hospital vice Dr. W. H. Brooks resigned.

Dr. Richard J. Scott, a well known practitioner of Upper Marlboro, died recently.

The American Academy of Medicine will hold its next annual meeting in Chicago, Ill., on September 17 and 18, 1889.

The conductors of the Old Colony Railroad are, we learn, to be given lessons in removing cinders from the eyes of passengers.

The Publication Agency of the Johns Hopkins University has been awarded a medal at the Paris Exposition for the merit and excellence of its publication.

The United States Hay Fever Association will hold its Sixteenth Annual Meeting on the 27th of August, at Bethlehem, N. H.

Dr. Henry C. Coe has been appointed Professor of Gynecology in the New York Polyclinic, to fill the vacancy made by the death of Dr. James B. Hunter.

Baltimore physicians and others are warned against an imposter (not the editor) who has lately been working New York for the Johnstown doctors, and then pocketing the money.

A new hospital for women in West Philadelphia, under the care of women physicians, the second of its kind in the city, is to be opened at the northeast corner of Forty-first and Ogden Streets.

A Physician in Belfast was recently sentenced to six months imprisonment for having passed as sound an applicant for insurance who was suffering at the time with well marked cardiac disease and dropsy and who died shortly afterward.

It is announced by foreign exchanges that the arrangements for the international Medical Congress in Berlin next year, which opens probaly on August 6th, have been confided to Professors Virchow, von Bergmann, and Waldeyer. Invitations have already been extended to all German medical societies.

The Medical Microscopical Society of Brooklyn will hold its next meeting at the Hoagland Laboratory at 8.30 P. M., Wednesday, September 4th. Papers on the following subjects are announced for the meeting: " Intimate Structure of the Derma of the Skin"; "Silver Images in Inflamed Cornea."

It is said that Milwaukee, which was one of the first cities to dispose of garbage by cremation, is about to abandon that process in favour of desiccation. The garbage is passed through a series of drying chambers for ten hours. The oily matter is pressed out, and the resulting dry brown powder is said to possess some value as a manure.

The Chilian Government having agreed to increase the grant to the Medical Society for the expenses of their journal, the *Revista Médica*, the editor promises that it shall be very much enlarged and improved. It has been in existence for some seventeen years, but has not obtained a sufficient circulation to enable it to attain financial success.

The death is announced of Dr. Jas. L. Cabell, senior member of the Faculty of the University of Virginia. Dr. Cabell comes of an old Virginia Family. He was graduated at the University of Virginia in 1833 and after a course of Medical study there as well as in Baltimore, Philadelphia and Paris, he was elected to the chair of anatomy and surgery in the University of Virginia. He occupied important positions of trust during the late civil war, and was well known in literature.

Original Articles

A CASE OF RECURRING ŒDEMA OF THE LEFT UPPER EYE-LID, DEPENDENT UPON UTERINE DISEASE. (NEUROTIC ŒDEMA.)*

BY HIRAM WOODS, M. D.,
BALTIMORE, MD.

Assistant surgeon at the Presbyterian Eye, Ear and Throat Hospital, Baltimore.

The following case is, I think, worthy of record.

Mrs. A., 29 years of age, the mother of three children, and in robust health, consulted me November 14th, 1886, on account of œdema of the left upper eye-lid. The lid was so swollen as to completely close the eye. Mrs. A. stated that all this œdema had come on within twenty-four hours. It was not accompanied by pain, although the lid "felt tense and hot." On one previous occasion she had had the same trouble. This was about one month before her visit to me. On this occasion the œdema had lasted a week or ten days. A thorough examination of the orbital tissues failed to reveal any local cause. There was no trouble in the neighboring nasal or oral cavities which could be indirectly held responsible, and an examination of the heart sounds and of the urine gave negative results. She was not taking any medicine at the time. In the absence of any special cause, as far as could be found, the case was treated with tincture of iron internally, and the application of a tight pressure bandage. The œdema disappeared in four (4) days, and Mrs. A. expressed herself as feeling perfectly well. I now examined her refraction and found a manifest hyperopia of one dioptre (1-36) in each eye, with weak accommodation. This glass was ordered for near work, and she was advised to continue the iron. I next saw Mrs. A. on December 13th. She presented the same appearance as on her previous visit, and gave precisely the same history. She now asked me if I had ever seen such a case as hers dependent on "womb-trouble." She did not, however, give me the information I gained one month later, and, indeed, said that she had no particular reason to think she had a uterine disease. So far as she knew she was perfectly healthy. The significance of the *date* of this second visit did not strike me, nor did she speak of it. In a few days the œdema disappeared under the treatment previously employed. On January 12th, Mrs. A. again appeared at my office with her left eye closed, just as before. This was the third attack I had observed, and the fourth she had experienced. She now stated that each time the lid had commenced to swell a day before the appearance of the menstrual flow. She was usually sick six days. She did not suffer pain during menstruation, but feared there was an excessive loss of blood. It was this latter circumstance that had led her to ask me in December if "womb-trouble" would cause the œdema. At my advice Mrs. A. now put herself under the care of Dr. W. A. B. Sellman, her family physician. Dr. Sellman tells me that he found an hypertrophied uterus, with chronic cervical endometritis and fungous granulations. There was more or less leucorrhœa. Dr. S. curetted the endometrium, and methodically applied the iodide of phenol to the mucous membrane of the uterus until the fall of '87. The result of this treatment was given me a few days ago by Mrs. A. herself. She had an œdema of the eyelids at each menstruation for four months after her visit to me in January. On one occasion both eyes were closed. Since she was discharged by Dr. Sellman in November, 1887, she has had no œdema or other reflex disturbance at the time of her sickness. Her general health is good. She has also discarded the glasses I ordered for her near work, and her eyes are comfortable without them.

In most of our standard text-books on ophthalmology mention is made of certain pelvic disorders causing eye troubles. Meyer speaks of amblyopia or failure of sight without appreciable eye lesion,

*Read before the Clinical Society of Maryland, April 5th, 1889.

occurring with difficult menstruation. It is usually transitory. Dr. Charles Stedman Bull, of New York, in his edition of Soelberg Wells, mentions diseases of the uterus and disturbances of the menstrual function as causes of idiopathic cyclitis. He quotes the opinion of De Wecker that these conditions account for the greater frequency of cyclitis in women. He states that girls from sixteen to twenty, having amenorrhœa or irregular menstruation, often develope a form of serous or plastic irido-choroiditis.

Such troubles as these are marked by permanent organic lesions in the eye. This is not the case with the "neuroses." In these, an eye disease is simulated for a time, and then the symptoms disappear. No organic lesion is left behind. In "The American System of Gynæcology" Dr. George J. Engelmann, of St. Louis, has an interesting and instructive article on the hystero-neuroses. He mentions the frequent occurrence of photophobia, asthenopia and such subjective eye symptoms at the time of menstruation, when this physiological process is in any way abnormal. When the eye trouble is a hystero-neurosis, it usually appears a few days before menstruation, and either disappears with the latter or lasts a day or two longer. Of all the hystero-neuroses he considers those found in the eye to be the slowest to disappear after cure of the uterine trouble. He insists upon the exercise of great care in diagnosticating amaurosis, amblyopia, or other eye disease as a hystero-neurosis. Such cases are not those hysterical amblyopias, seen occasionally, where the visual defect comes and goes without any regularity. Nor are they the cases of failure in sight" caused by extravasation of blood into the retina during intense cerebral and pulmonary congestion, depending upon the retention of the menstrual flow." "Cases of amaurosis during pregnancy and lactation which are indirectly due to changes in the sexual organs," but which "are found in connection with albumenuria and accompanied by actual lesions of the optic nerve," are also to be rejected from the neuroses. The diagnosis is only justifiable when the eye trouble appears at the menstrual period, "recurring each month" and disappears "upon the treatment of the uterine lesion. Dr. Engelmann declines to make any effort to refer certain eye diseases, neuroses or not, to definite pelvic lesions. He gives the following attempt at such a classification, by Rampoldi, of Pavia, only to state that he does not believe "that any such positive relationship can ever be established:"

1. Hysteria and chronic perimetritis are causative of asthenopia and rarely of ptosis, hyperæsthesia or anæsthesia of the retina.

2. Amenorrhœa may cause conjunctivitis, keratitis, iritis and phlyctænia: Suppression of the menses, diseases of the choroid.

3. Inflammatory diseases may cause neuralgia of the 5th and iritis serosa.

4. Pregnancy may cause the ocular troubles resulting from albuminuria.

5. Lactation may cause panophthalmitis and many diseases resulting from weakness and debility, as ulcers of the cornea, etc.

The explanations of lid œdema to be found in our books on eye diseases are generally unsatisfactory. Meyer speaks of an "idiopathic œdema" of the lids which "often resists every treatment." Soelberg Wells gives only feeble health, heart and kidney troubles as causes outside of local ones. Macnamara mentions an œdema coming on during the night and involving the lids of one or both eyes. He attributes it in the first instance to insect bites, and in the last to "taking cold." Mackenzie discusses the subject at greater length than most of our more modern eye authorities and mentions nasal disease (polypus) pressure in the lower part of the face, as after harelip operation, and even the pressure of crutches with lame persons as having produced this œdema. He also speaks of it as a "sympathetic affection of a remote organ," and mentions a case in which it occurred with severe headache, both conditions being due to costiveness. Under "Reflex Dermatic Neuroses" Dr. Engelmann mentions two cases of "small tumefactions," occurring in

various parts of the body and dependent upon dysmenorrhœa.

Mention should be made of a class of interesting cases which have been occasionally reported. There are cases of so-called "neurotic œdema," in which there suddenly appear swellings in various parts of the body, which disappear as rapidly as they come. In the *American Journal of the Medical Sciences* for April, 1888, Prof. Osler has an article on "angio-neuratic œdema." He shows that sometimes it is hereditary. The eyelids seem to be a favorite seat for this trouble. At times the œdema is accompanied by severe headache, gastric troubles, intense colicky pains, diarrhœa, etc. Prof. Osler thinks that the "colic is due to œdema of local regions of the intestinal wall." He says that Quircke, who first described the disease, considers it a "vasomotor neurosis, under the influence of which the permeability of the vessels is suddenly increased." Mention is made of the report of cases by Jamieson, (*Edinburg Medical Journal*, June, 1883,) Riehl, (*London Medical Record*, December, 1887,) and Matas, (*New Orleans Medical Journal*, October, 1887.) Dr. George H. Rohé, of this city, in an article on "Diseases of the Skin Associated with Disorders of the Female Sexual Organs," (*Buffalo Medical Journal*, February, 1889) speaks of cases of "œdema occurring contemporaneously with the menstrual period or with the change of life." "These tumefactions," he says, "are similar to those reported by Quircke, Jamieson and Riehl, and are always related to disturbances in the sexual apparatus."

A review of these cases shows that this transient œdema follows a variety of causes. In some instances the exciting cause appears to be an inflammation near to the œdematous region. The ingestion of certain kinds of food, or an anæmic condition is looked upon as causing it in others, while in many no possible cause can be assigned. In Matas' case the upper lip became œdematous about the same hour each morning. This periodicity suggested the use of quinine, and the trouble disappeared at once. Jamieson states that the trouble is more common in men than in women. Dr. Allen J. Smith, of Philadelphia, reports several interesting cases in the *Medical News* of March 23d, 1889. In one the œdema appeared each year, during the cold months, in the nose and eyelids, and was always preceded by nasal catarrh. The trouble *first* appeared after an attack of facial erysipelas. Another patient always had the under lip and the lobe of the left ear to swell when he caught a "nasal cold." In another "the attacks recurred without apparent cause or warning several times a year." In this case the œdema was usually in the face but occasionally invaded the arms. The anæmic condition of the patient was removed by a course of iron, and the attacks of œdema ceased. Dr. Smith suggests these two classes of angio-neurotic œdema:

1. Inflammatory—depending upon actual inflammatory processes in the papillary layer of the skin.

2. Neurotic—depending rather upon an angiomatous condition of the lymph-vessels of the corium due to alteration in the nervous supply.

To the former class he would refer those cases of œdema in which the papillæ of the skin in the affected region could become involved by an extension of inflammation. Such cases would be the swelling of the nose or lips in nasal troubles. The second class will include cases in which a *direct* extension of an inflammatory process is impossible. He thinks it very improbable that sufficient inflammatory action can be transmitted by nervous reflex to account for the œdema.

THE UNIVERSITY OF MARYLAND FROM 1837 TO 1839: THE RUPTURE; THE TWO FACULTIES; THE SUIT AND THE RESTORATION OF THE REGENTS.

BY EUGENE F. CORDELL, M. D.

Such were the circumstances which led to the crisis of 1837. The inflammable material had now been made ready,

and needed but the match to burst forth into flames of discord and disunion. This match was furnished by the appointment of Dr. Henry W. Baxley to the chair of Anatomy, as the successor of Professor Geddings.

Dr. Baxley first became connected with the faculty in 1834, as Demonstrator, succeeding Dr. Lyon. At that time Dr. Augustus L. Warner had a private dissecting room on Cider Alley just in the rear of the University. On his election to a chair at the University of Virginia, this passed into the hands of Dr. William N. Baker, a graduate of 1832, and a son of Professor Samuel Baker. Dr. Baker was a young man of fine address and education and social qualities which made him a general favorite. His students were warmly attached to him and his rooms were more frequented than the dissecting rooms of the college. Dr. Baxley on the other hand was devoid of sociability and stood much upon his dignity and the prerogatives of his office. A certain amount of rivalry thus arose between the two dissecting classes, and as Baker had such personal attractions and was so much liked by the students, with whom the Faculty kept up the most friendly relations during the difficulties with the Trustees, and especially as he was the son of one of their colleagues and of a founder of the school, in time the Professors began to give the preference to Baker.

Woe to the teacher who incurs the displeasure of the class in a medical college. Medical students are an especially rough set to deal with, although the classical description of Bob Sawyer and Tom Allen fortunately no longer applies to them in this day. In the first place they are men and cannot be disciplined as boys are, and in the second place there is more freedom and license in medical than in other schools. Much therefore depends upon a teacher's tact and personal qualities. Slight deviations from etiquette and good breeding had better be overlooked or touched upon lightly and pleasantly or else there will certainly be a row. In the days of which we write, students were less tractable than now and it required a vast deal of patience and self-control to deal successfully with them. The first difficulty which Dr. Baxley had with a student was in Feb. 1835. In a communication which he addressed to Professor Geddings on the 3rd., he complained of the conduct of one of the students, a Mr. Gilmer of Va., during the previous day's lecture on Anatomy. He charged this gentleman with "taking *his* seat–a seat appropriated to the Demonstrator of Anatomy and which he had been accustomed to use during the session–and refusing to give it to him." He says that the offense was all the more censurable because committed in the presence of the whole class and the Professor. On being refused his seat, he states that he left the room. He desires to know "what course he should pursue." He received a reply to the effect that Mr. Gilmer disclaimed any intended disrespect and said that he was not aware of the seat having been appropriated and had it been solicited in a proper manner he would not have retained it. In answer to this, Dr. B. states that he simply presented himself before the seat, which he had been in the habit of occupying every day, and which Mr. G. had relinquished on a similar application by manner on a former occasion. He was now directed, however, to "go on." He adds that "he would have considered it an improper surrender on his part of the rights of the station he held, and a culpable indifference to the respect due to that station from the pupils of the school, to do other than plainly intimate a consciousness of those rights and the determination to require that respect to be observed." He accordingly replied: "I will occupy this seat, sir!" To which receiving the answer, "No you wont, sir," he retired as above stated, intending if necessary to bring the matter to the attention of the authorities of the University, "alike competent and disposed to secure becoming subordination." He says that he has heard that Mr. G's. conduct before and after the transaction did not accord with his statements to Prof. Geddings, and he must therefore request a written disavowal from him or a written statement of that disavowal

from the Dean (Prof. Dunglison). The latter, as being probably most easily obtained, was accordingly given and matters were thus in appearance at least accommodated for the time. But it is probable that this affair left unpleasant impressions with this and subsequent classes. Prejudices are easily excited and linger long and students do not always judge according to the right where their classmates are concerned.

We find no record of any other similar occurrence during Dr. Baxley's incumbency of his office. He seems, however, to have been on intimate terms with the Trustees and this was sufficient to make the Faculty look upon him with distrust and to have given rise to the charge by Professor Potter, that Prof. Geddings had been "banished by intrigue, injustice and envy."*

I may here allude to the attitude of Prof. Potter towards the Trustees. He seems to have been the most bitter against them of the members of the Faculty, and also the most obnoxious to them "because uniformly without reserve, at all times and in all places, exposing their acts." † The affairs of the University were freely discussed with the students who naturally sided with the Professors and laid the blame on their opponents. The Trustees are said to have "declared that should either of the Professors in their intercourse with the students speak disrespectfully of them or their acts, they" (the Professors) "should forfeit their chairs and be expelled from them". To this Prof. P. says he made reply publicly, that if they would let him appear before the Board, he would give them the opportunity to resort to still more extreme acts of tyranny.‡

Early in 1837 the Faculty endeavored to secure the passage of an act by the Legislature giving them seats in the Board of Trustees, "with power to vote on all matters appertaining particularly to the medical department and in the appointment and removal of a provost, professor, lecturer, tutor, demonstrator, or other officer connected with the said department, or on questions relative to their duties or the duties of any of them, or on the establishment, alteration or abolishment of a professorship, lectureship or any other officer in said department, but not to vote on fiscal questions or on business of other departments."*

The Trustees of course opposed this and presented a memorial giving the reasons why it should not be passed. They carried their point and it was rejected.

It was known to the Faculty that Dr. Baxley was the choice of the Trustees for the chair vacated by Professor Geddings. They unanimously favored the appointment of Dr. Baker. Baxley had now become so offensive to them that they had determined not to remain in the Faculty if he were admitted. At a meeting held in the Infirmary on the 2nd of May (1837), the "arbitrary and injudicious acts of the Trustees and the unconstitutionality of the act of 1825" were discussed. At a later meeting Professor Hall reported the opinion of counsel on the probable success of a suit and urged that one be entered upon. It was unanimously resolved that if the Trustees should make an appointment to the chair of Anatomy of "an individual" now proposed by them in direct opposition to the nomination of the Faculty, the Professors should resign and the resignations were then placed in the hands of Professor Hall, the Dean, to be used in accordance with the resolution. As soon as the official announcement was received of the obnoxious appointment having been made, the resignations were delivered to the chairman of the Board.† Drs. Potter and Hall, Senior Members of the Faculty, in resigning their appointments under the Trustees expressly retained those formerly held from the Regents under the charter of 1812.‡

Having declared themselves independent of their late masters, no time was lost in reorganization. The two senior members constituted the nucleus, the direct

*MS. Records of University.
†Potter's Sketch.
‡Potter's Sketch.

*See copy of proposed bill *MS. Records.* of University.
†Professor Ducatel had resigned April 1st, 1837, upon what grounds not stated.
‡MS. Minutes of Faculty, 1837—39.

successors of the last Faculty under the Regents, and they elected Professors Smith and Griffith to the chairs which they had just resigned. Professor Hall was made Dean and being the Secretary of the old Board of Regents, was directed to call a meeting of the same, a majority of them being still alive. The Regents accordingly met, and resolved to obtain further advice from counsel as to the legality of holding lectures the next session under the old charter. The gentlemen thus consulted (Messrs. Martin, Mayer and Evans) declared that the Faculty of the Regents was the legitimate Faculty and as such had full authority to lecture and confer degrees. The Faculty of Law "entirely concurred" in this opinion.

A few weeks after the secession of the Faculty, Professor Griffith resigned, having accepted an appointment at the University of Virginia. Dr. Samuel G. Baker, a younger son of the former Professor Baker was elected to fill the vacancy. The departments of Anatomy and Physiology for the ensuing session were assigned to Professor Smith, and Dr. John Byrne was appointed Demonstrator. An advertisement of the course was ordered in accordance with these arrangements and Professors Smith and Baker were constituted a committee to contract with the owner for the use of the southern part of the Baltimore House, formerly known as the Indian Queen Hotel, corner of Baltimore and Hanover streets, and to prepare the same for the reception of the classes. In accordance with a resolution adopted by the Regents, Drs. Potter and Hall were named as a committee to coöperate with other committees from the Faculties of Law and of Arts and Sciences in the management of the impending suit. On the 4th day of October Dr. Wm. E. A. Aikin was elected Professor of Chemistry and was authorized to purchase chemical apparatus on the credit of the Faculty to the extent of $500.

The counsel selected by the joint committee to carry on the suit were Messrs. Meredith, Evans & Mayer and R. N. Martin, all prominent lawyers of that period. They were requested to have the suit docketed as soon as possible during the current term of the Baltimore County Court. A retaining fee of $150 was proposed and accepted by the others, but Mr. Evans declined any fee for his services.*

Any account of this period would be incomplete without some allusion to the "outrage" committed on the night of the 21st of September, 1837. This was a successful attempt by the Regents' Faculty to get possession of the University buildings. From depositions taken subsequently by the executive committee of the Trustees,† and especially from the statements of the janitor, the following account of this transaction is obtained: Professor Samuel G. Baker called at the house of the janitor, Thomas Maguire, within the University walls at the northern extremity of Practice Hall, and finding him out, left word with his wife that he wished to see him at 7 o'clock. Accordingly, at that hour, Maguire repaired to the doctor's office, when he was told that the doctor would soon be in and to take a seat. He waited until 8 o'clock without accomplishing the object of his visit. Then on returning home he was surprised to find the outer gate fastened. He rapped and his name was demanded by a voice from within. He gave it and was told he could not enter. The gate was then opened and he saw Professor Smith within. Professor Baker now came out and walked with him down the alley to the tavern at the corner of Paca and German streets. Here they met Professor Hall. The two Professors then told him that the steps they had taken were adopted in accordance with the advice of their counsel, with the object of getting possession of the property of the University. He then went to the Infirmary and reported what had taken place to the Governor of that institution. Here he found his wife and a woman who lived with them. They had been sent out on various pretexts when the premises were seized and being unable to get back had gone to the Infirmary.

*MS. Minutes of Regents' Faculty.

†*MS. Minutes* of the same. *University Records.*

The Trustees were convened the next morning when Mr. Nelson was directed "to examine into the proceeding and make arrangements for the recovery of the buildings from "the trespassers," and Messrs. Reverdy Johnson and McMahon were employed as assistant counsel.

The property was held until the afternoon of the 23rd when the janitor was told by Prof. Hall that they had determined to give it up for the present and let the matter take its regular course in law and that he could get the keys. He then went to the gate and saw two of the students shutting up his house. They offered him the keys but he refused them, preferring that they should be left, as agreed with Prof. Hall, at a neighbor's. He then went for Mr. Jas. W. McCulloh, one of the Trustees, and Prof. Baxley, and, accompanied by them, got the keys and examined all the buildings. They found some articles missing from the Museum, which had been claimed by members of the Regents' Faculty as private property. They found in one of the rooms of his house three vessels that had contained liquors and a coarse bowie knife made out of a part of an old sword, which one of the young gentlemen afterward called for. This account was corroborated by other witnesses. Thus ended this brief reign of martial law and fortunately without the shedding of blood. Had there been any resistance on the part of the Trustees, or any attempt to recover possession by force, it is probable that the writer would not be able to chronicle so happy a termination of the affair.

The term of the Indian Queen School began at the usual time, the last Monday in October. Nearly all the city students attended it, whilst students from the counties and other States, who would formerly have resorted to Baltimore, were diverted by the distractions here to other cities.* There was a very noticeable reduction in the total number of students attending the institution as now represented by its two divisions. The Regents' lectures were delivered in a large room which was divided into two compartments by a curtain. Prof. Aikin occupied the apartment formerly appropriated to the use of the barber* and had a class of 13. The introductory lecture was delivered by Prof. Samuel G. Baker, and was upon questions then uppermost in the minds of himself and colleagues, the University and its recent difficulties. He refers to the enthusiastic interest in the Regents' school and the wide spread sympathy of their fellow-citizens, and compares the entrance of the Trustees to Burr's visit to Blennerhasset. He speaks of "a few master spirits of faction," admitting into their secret conclave an inferior officer of the school, whose pliancy adapted him to any service, and gravely and deliberately planning an entire revolution in the organization of the medical department.

That this lecture was in bad taste cannot be questioned, but we must remember that feeling was running high at the time of its delivery, and that the author was smarting under the sense of great injustice, and it was but natural that there should be an exuberance of sentiment and expression in one so young.†

The Trustees opened their session about the same time "to a beggarly array of empty benches,"‡ the introductory lecture being delivered by Prof. Baxley, and printed at the request of his colleagues. The Faculty consisted of the following: H. Willis Baxley, Prof. of Anatomy and Physiology; Henry Howard, Obstetrics and Diseases of Women and Children; M. A. Finley, Principles and Practice of Medicine; Robert E. Dorsey, Materia Medica; W. R. Fisher, Chemistry; John F. May, Principles and Practice of Surgery;§ Ellis Hughes, Demonstrator.

During the winter the Regents' Faculty presented a memorial to the Legislature praying for the repeal of the act of 1825 and to this the Trustees offered a counter-memorial, in which, whilst

Memorial of Trustees, Feb., 1838.

*Oral communication to the author.

†Prof. S. G. Baker was then but 22. He was the youngest Professor who has ever held a chair in the University.

‡*Potter's Sketch.*

§Baxley's lecture. "The chairs in which the professors recently labored are now occupied by strangers, having in vain been offered to almost every prominent medical man in Baltimore and to many in other places." Circular of Regents' Faculty. 1837.

acknowledging the failure of their session, they declared that "the character and acquirements of their Faculty were such that the University by another season would fully resume its former standing."*

At the end of this session commencements were held and sixteen students received diplomas, ten of whom belonged to the Regents' School.†

Early in July, 1838, Prof. Smith resigned his chair and accepted the chair of Practice of Medicine in Transylvania University, Lexington, Kentucky.‡ Prof. Hall was then elected Professor of Surgery for the ensuing session, to "give as complete a course as his attention to the department of Obstetrics, etc., would allow, by lecturing every day, and on certain days twice." Dr. Wm. N. Baker was elected Professor of Anatomy and Physiology.§

During the session of 1838–9 24 students‖ attended the Regents Faculty of whom 7 graduated: the number at the Trustees' school is not known.¶ The lectures at the Indian Queen were closed somewhat prematurely at the close of the session, as the proprietor began to pull down the building over the heads of the class.

Meanwhile the suit against the Trustees had been tried in the County Court and decided in their favor. An appeal was taken and early in 1839 the masterly decision of the three judges* of the Court of Appeals, who heard it, was delivered by Chief Justice Buchanan, The question was as to the constitutionality of the act of 1825. The opinion of the Judges contained the following declarations and decision: that the University had none of the characteristic of a public corporation, which it had been claimed to be. It was not created for political purposes and was invested with no political power, it was not an instrument of the State, created for its own uses; its members were not officers of the State or subject to State control in its management, and none of its property or funds belong to the State. The State was not its founder, it was merely the creator by virtue of the act of incorporation. In its creation the State gave it the capacity to acquire and hold property and whatever property the corporation has is its own, to be managed and disposed of by the Regents for the use of the Institution in such manner as they may judge most promotive of its interests. No donations or endowment by the State could make it public, but it nowhere appears that any such have been made. The interest-bearing loan of 1821 can scarcely be called an endowment; it is rather a loan to a private corporation. The authority to raise money by lottery certainly was not; it was a mere privilege costing the State nothing. But if it were a public corporation, its debts were the debts of the State, contracted by the State's own officers, which the State was bound to discharge instead of lending money for that purpose and taking security for the payment of interest on it. The corporation is as much private as the individuals were before the act of incorporation was passed. The charter of the University is a contract between the State and the corporation. The Constitution of the United States says no State shall pass any law impairing the obligation of contracts. The franchises of the University are vested rights and cannot be taken from the Regents by any act of the Legislature without the assent of the corporation. The State had plighted its faith that the franchises should remain inviolate. If the State had the right at will to revoke this grant it had the same right in relation to railroads, canals, and

*MS. Minutes of Trustees. "It remains to be seen whether the Trustees can bestow upon them" (i. e. their Faculty) "the reputation and public patronage for which some of the late incumbents have expended the best part of their lives and no small portion of their fortunes." *Circular* of Regents' Faculty, beginning of session of 1837 8.

†MS. List of Matriculants.

‡Trouble began in Transylvania University in 1837 from an attempt to remove the school from Lexington to Louisville. Prof. L. P. Yandell and others seceded and successfully established a new school in the latter city.

§Minutes of Regents' Faculty, *University Records*.

‖9 of whom were from Maryland.

¶Washington College had 53 students and 16 graduates this session. *American Journal of Medical Sciences*.

*Judges Buchanan, Stephen and Spencer. The other three composing the bench (Archer, Dorsey and Chambers) retired from the bench being debarred by the fact that they had been members of the Board of Trustees. The Regents were represented by Messrs. Evans, Mayer, Martin and Meredith. The Trustees by Messrs. Reverdy Johnson and Nelson. *Records*.

other corporations, which would not be pretended. The act of 1825 aims to strip the corporation of Regents of all privileges and powers conferred upon it by the act of its creation—to destroy the old and create a new corporation in its place, giving to the latter all the powers and privileges of the former, with others additional and important. It deprives the corporation of Regents of the capacity to acquire and hold property; it even goes so far as to take from them the property they had already acquired and give it to others, whom it connects with the political power of the State by making the Governor President and authorizing him to fill vacancies. Not only the Constitution of the United States had been violated, but the fundamental principles of right and justice. The Legislature has no right without the assent of a corporation to alter its charter, or take from it any of its franchises or property; these are private property, regarded as such by the law, and are under the safeguard of the same principle that protects and preserves the property and rights of individuals. Vested corporate and individual rights rest for protection on the same principle. The act of 1825 was a judicial act, a sentence that condemned without a hearing. It is necessary to declare judicially a forfeiture before the Legislature can act. The franchises can only be surrendered by deed to the State. Those of the professors who accepted the appointments under the Trustees merely joined another corporation, as there is no evidence that they offered to resign from the corporation of Regents, or of any acceptance of their re-ignations by the said Regents. The acceptance of positions under the Trustees did not amount to resignations of those under the Regents, and did not dissolve or suspend the latter corporation. Therefore the act of 1825, being contrary to the Bill of Rights and to the Constitution of the United States and the State of Maryland, was null and void.†

The author has given this lengthy epitome of the Court's decision because it settles authoritatively many points with reference to the status of the University, and gives a clearer idea than the reader could otherwise have of its scope and franchises; and because it is a document that applies not to that one time and occasion only, but will stand for all time. Moreover, it determines momentous questions of general interest to the public no less than to those for whom it was originally pronounced.

Immediately after the decision was rendered the Regents met and prepared a memorial for presentation to the Legislature, then in session. In it they asked the State to direct her agents, the Trustees, to surrender their property to them, but the Trustees were still unwilling to abandon the fight and determined to resist to the last. It seems that they apprehended another *coup d'état* by the Regents' Faculty, for on the 15th of January, 1839, they passed a resolution authorizing the employment of "watchmen and other proper guards for the protection of the buildings and premises." They also presented a memorial to the Legislature on March 1st.* In this they said that as agents of the State they held certain "fee-simple and leasehold property, viz.: the medical college and its adjacent buildings; the Infirmary purchased in 1832 by the Trustees with State funds for $12,000,† together with the lot adjoining thereto,‡ also purchased with State funds by the Trustees in 1833 for $6,000, and the Baltimore College surrendered and conveyed to the Trustees in 1831, the whole property being valued at $87,916.67; as also certain personal property derived from State funds, to the amount of $18,000, excepting therefrom a special bequest of $5,000 by Mr. Gray to the Trustees for the use of the Infirmary in 1833, and a few articles of minor importance. They therefore pray the State, in view of the preservation of its rights in its own property thus acquired and held, not by any leg-

*Printed Opinion of the Court. *Pamphlet.*

*Minutes of Trustees.

†It seems from this that they had purchased the Infirmary from the five professors who had built it, although this amount is less than the cost, as previously stated.

‡This must have been the corner lot, since covered by an extension eastward of the Infirmary buildings.

islation to surrender up the possession of the same, as asked by the Regents, but to leave the rights of others thereto to be inquired into by the tribunals."

The two memorials were referred to a joint committee of the two houses, who brought in a lengthy report, reviewing the origin of the questions at issue,* recognizing fully the "individual wants and hazards" of the professors in founding and maintaining the institution and recommending the passage of a bill restoring the property to the Regents, in accordance with their just request. This bill was accordingly passed.†

On the 1st of April Mr. Solomon Etting, the "Governor" of the Infirmary, resigned, and on the 6th of the same month Dr. Ashton Alexander, Provost of the Regents, addressed a communication to Mr. Nathaniel Williams, transmitting a certified copy of the act of the Assembly above referred to, together with a copy of the certificate transmitted by the Regents, in pursuance of the 5th section of the same, and notifying him that the Regents have appointed Chas. F. Mayer, Esq., A. B. Cleveland, M. D., and R. W. Hall, M. D., a committee, with authority, in their behalf, to receive all the estate, real and personal, including all stocks, monies, evidences of debt and choses in action, in the hands or under the control of the Trustees, and that the said committee would be in attendance at the University, April 10th, at 10 A. M. to accept the transfer." Mr. Williams replied on the 8th that the Regents, or a portion of them, had taken actual possession of the College and Infirmary some days before‡ and that he had not therefore deemed a formal transfer necessary; that the stocks, money and evidences of debt were in the possession of the Treasurer of the Trustees who was ready to hand over the same "on the suit in chancery of Potter and the others against the Trustees, and the two suits brought by the Regents against him, all in the Baltimore County Court, being entered satisfied or stricken off;" that the only chose in action belonging to the Trustees was an unsatisfied judgment in the said court against David Hoffman, Esq., which was in charge of Wm. Gwynn, Esq.*

On the 9th of April the committee met Mr. Joseph B. Williams, the Treasurer of the late Board of Trustees, and received from him the following:

"1. A certificate of stock of the state of Maryland, signed by George Macubin, Treasurer Western Shore of Maryland, dated 8th December, 1829, for $5,000, bearing interest at 5 per cent., redeemable after the 31st of March, 1844, being the proceeds of a bequest of $5,000 made by George Gray, in favor of the Trustees of the University of Maryland, for the Baltimore Infirmary.

2. A certificate of stock of the state of Maryland, dated May 11th, 1837, for $1,000, with 5 per cent. interest, redeemable after 1843.

3. A certificate of the B. & O. R. R., for $6,000, July 25th, 1836, bearing 6 per cent. interest.

4. A certificate of the B. & O. R. R., for $4,000, August 4th, 1836, bearing 6 per cent. interest.

5. $1,791.49, balance of money remaining in the said Williams' hands."†

Thus ended the rule of the Trustees. They fought hard for their places, but their cause was not a just one; for that, they were not responsible. They displayed an energy and capacity that under other circumstances would have secured success and honor, but they had insurmountable obstacles to contend with. We must seek to judge them impartially and with due regard to the circumstances by which they were surrounded. They had under them a hostile

*It seems there was some suggestion at this time in the Legislature of a *State* University, when it was found that the State had no control over the University of Maryland, but it was not carried out.

†In passing the act of restitution, the Legislature required the Regents to "certify to the Treasurer of the State that the property and estate of the University should never be disposed of or converted to any other use than that of Medical Science or the Arts and Sciences generally, without the consent of the General Assembly of Maryland," which, in the event of a violation of this obligation shall have power to "take possession of and control and direct the said property and estate for the purpose of promoting general science." Another act, passed the same session, makes valid all the diplomas granted by the Medical Faculty from 1826 to 1839 inclusive.

‡There was some hesitation in taking possession on the part of the Faculty, when Mr. George W. Miltenberger and two other students went to the back gate and rapped. The Janitor was called out when the party slipped in and locked the door on the inside so that he could not get in again. The Faculty were then notified and came in. The Trustees made no attempt to eject them. Oral communication from Prof. Miltenberger.

*Minute Book of Trustees.

†M. S. Minutes of Trustees

faculty, who lost no opportunity to arouse the prejudice of their classes and of the community against them. They defended themselves with much vigor and intelligence. In their memorial to the Legislature, dated March 7, 1837, objecting to the admission to their Board of members of the Faculty, they declared that the Institution at the time of their advent was in a state of anarchy and the charter ignored; in confirmation of which statements they pointed to representations made by members of the Faculty themselves, and to the report of the joint committee of the two Houses appointed to examine into the state of the University. According to this report, although $100,000 had been expended, only two of the four Faculties—those of law and medicine—had gone into full operation, whilst all the funds were applied by the Faculty of Physic to their own benefit, none being apportioned to the other departments; the charter was radically defective; the regents met irregularly and at long intervals and had neglected to make rules and regulations for the discipline of the University as required by the charter. They pointed to the advantages of having an independent Board to manage the affairs of the institution—"a Board free from the influence of personal interest and therefore looking to the promotion of the general good, removed from the operation of prejudice or partiality by official station, and therefore unbiased in extending justice to all those employed in performing the detailed duties necessary to the fulfilment of the whole design; a government which now prevails and has been found to be productive of the happiest results in all the Universities of this country." The then prosperous condition of the University, with reference to pecuniary affairs, they said, was admitted by the Faculty, who yet intimated that the gradual diminution in the classes was due to their misgovernment. In answer to this they said that the classes during the previous eight years had varied but little, and they attributed the loss of patronage previous to that time to the resignation of Prof. Pattison, whose personal popularity had attracted so many, and to the rapid multiplication of medical schools. In answer to an objection from the Faculty to their requiring all students to take the ticket of the Demonstrator once at least before graduation, on the ground that this obtained in no other school in the United States, they quoted Prof. Dunglison to the effect that most of the schools require one year's attendance on the clinics, and some the same on practical anatomy, in addition to two courses of the professor of anatomy. In the University of Edinburgh the candidate for the degree of M. D. was required to have attended one course of dissecting and one course of anatomical demonstrations, and two of these were required for the degree of surgeon.* But as the demonstrator in the University was also a "lecturer," there was no choice in the matter, as the charter prescribed attendance as a duty. As a matter of simple justice, too, it was demanded, since the Faculty had required that the Demonstrator should pay one-seventh of the current expenses of the School.

These objections lose much of their weight on close inspection. It is true that the medical faculty had used the funds for their own department, but then they raised those funds by direct contribution, by loan or by successful management of the lotteries. The other faculties had the same opportunity as they, but made no effort. Nothing could be expected from the Divinity Faculty, organized as it was, and as for the Faculty of Arts and Sciences, the Trustees had themselves made no great progress in the building up of that. The "anarchy" was probably an exaggerated expression; at any rate it did not appear to keep away students, who flocked to the school in greater numbers during the period of so-called anarchy, than during the period of, presumably, correct government which succeeded under the Trustees. The defects of the charter and the neglect of the Regents did not warrant the radical measures adopted so inconsiderately in 1825. There was no reason to suppose the institution would have been in a less

*practical anatomy was not absolutely imperative at the University of Edinburgh until 1833.—*Historatis Sketch of Edinburgh Anatom. School.* By John Struthers, 1867. It was not until about 1848 that the schools in this country began to make it compulsory. See Note further on.

prosperous condition in 1837, with reference "to pecuniary affairs," if the Faculty had remained in control; on the contrary, had they not been interfered with, it could easily be supposed that with larger classes and greater income, their financial resources would have exceeded those of the Trustees. The objection with regard to the Demonstrator seems well taken, but even here we must recollect how long ago that was, and make some allowance for the undeveloped training of those days. With regard to the best method of government of the school, it became an abstract question by the decision of the court. Granted that the mode of government selected was not the best, still success under this plan is not impossible, nor is it unknown. There is always a conservative element in every faculty that tends to preserve the equilibrium between extremes, and public sentiment if not consciousness of right, is becoming an ever stronger check upon irresponsible Boards of medical teachers.

A CASE OF TABES, TREATED BY SUSPENSION, ACCORDING TO MOTCHUTKOWSKI.

BY ROBERT HOFFMAN, M. D.,
OF BALTIMORE.

The first communication speaking of the treatment of tabes by suspension came from the clinic of Prof. Charcot, of Paris, in July, '89, who had treated a number of patients with tabes by this method; doing altogether about 900 suspensions, and claiming unquestionable improvement in all cases.

The originator of this particular treatment is Dr. J. W. Motchutkowski, of Odessa, who advocated the treatment of Tabes by suspension in 1883. (Wratch 17–21.) Motchutkowski's observation was not actually the result of intended experiments, but he accidentally discovered this new method. He had a patient under treatment for scoliosis, who also was afflicted with tabes. Suspension was practiced on him for the purpose of putting on Sayre's jacket to correct the deformity. To his great surprise the patient on the following day reported decided abatement of the lancinating pains and of the peculiar feeling of constriction around the waist. This statement induced M. to make further experiments with suspension in Tabes. By measurements he showed that there was an elongation of the body of 2½-5 C.M. and a corresponding stretching of the spinal cord.

In the latter part of '88 Russian physicians introduced this method in Prof. Charcot's clinic at Paris, whose communication in *Progres Medicæ* July 19, '89, advocating it, aroused considerable comment and attention in the various medical circles. It was tried and investigated accordingly in the different clinics, proving that beneficial results are obtainable by this method.

Profs. Eulenberg and Mendel (Berlin) report 40 cases treated by 975 suspensions, averaging 24 per case; of these 34 were typical cases of tabes, all of which excepting 5 were decidedly or perceptibly improved while under treatment, the other 6 cases, one of which was disseminated sclerosis, another traumatic neurosis, and another chronic myelitis and the other three paralysis agitans, were not perceptibly affected by the treatment. These authorities advocate the adoption of this method in the treatment of tabes, but as yet are not prepared to give a positive or final opinion.

Charcot does not endorse too frequent suspensions, three times weekly, from one half to three minutes, in his opinion, giving the best results; Mendel and Eulenberg, however, practiced it daily in a number of cases without deleterious effects being noticed. Although but a short time has elapsed since the advent of this new method, so short, indeed, that it is impossible to pass a final opinion as to its real worth, notwithstanding it is the duty of every physician to resort to it in treating tabes, knowing that electropathy and hydropathy have done but little to ameliorate the patient's condition.

I had in my practice one typical case of tabes when I first saw Charcot's com-

munication. This patient I had treated for a considerable time without benefitting him, by the usual methods.

The marked improvement noticed after the first suspension, I thought, warranted my publishing it, for the observation of many isolated cases occurring in the practice of physicians help to establish the worth or worthlessness of a new therapeutical method or agent. The history of my patient, which also has much in it that might prove interesting concerning the much disputed connection between syphilis and Tabes, is as follows:

Mr. P., bookkeeper, age 39 years, married, a thoroughly educated man, from a healthy family, never sick from his fourth until his twenty-ninth year; the five years preceding his 21st year were spent in doing hard work in a swampy region, for a hard taskmaster, who treated him badly and fed him worse, he at times suffering the pangs of hunger; from this time until his 29th year, his circumstances improved materially; he was healthy and well provided for. At the age of 29, he suffered syphilitic infection and was treated for it by inunction until cured; during the years following, he remained well, no symptoms occurring to give him any discomfort, until, about three years ago, he began to suffer pain, which suddenly manifested itself in different parts of the body, annoying him particularly in his heels; he paid little attention to them, believing them to be rheumatic. This condition continued for about two years, patient not consulting a physician; but then the lancinating pain throughout the whole body, and the sense of constriction at the lower border of the thorax became so severe, and during rainy weather and at night almost intolerable, so that patient was obliged to consult a physician; he was put on a course of electricity, the galvanic current was used for a considerable time, this treatment was combined with internal use of Potass. Iodid.; however,no relief followed. Patient claims, however,that he also suffered with double vision, which disappeared permanently after the use of the Potass. Iodid.

During the latter part of April of this year, owing to the rapid and sudden changes of temperature, (truly a refined torture for patients with this disease who reside here), my patient suffered intensely and became very melancholic. About the first of May he came to me for treatment, saying that he could no longer bear the feeling of constriction and pressure around his body, and the lacinating pains, which prevented sleep altogether.

On examination, found the typical symptoms of the first stage of Tabes (Westphalis and Romberg's; sign present patellar reflex absent), there are no ataxic phenomena, and but little sensory disturbance. Cervical and cubital glands enlarged. With reference to the syphilitic infection of this patient, which is confirmod by finding signs of hereditary syphilis in his children, which disappeared on giving calomel; the patient was induced to submit to a course of hypodermic medications, every second day, a 1 per cent. solution of corrosive sublimate, combined with a 3 per cent. solution of salt was injected alternately in the water. Patient hardly felt the prick of the needle, nor did any local irritation follow the injections, as is so often the case. This anti-syphilitic treatment was not followed by the least improvement, although supplemented by electrical treatment, the galvanic current was applied to his spine, the faradic to heels and legs without any demonstrable benefit. Patient became very depressed, notwithstanding that I tried to cheer him by assuring him that he was only affected by a nervous trouble of rheumatic origin. I did this because I consider it of supreme importance, for the psychical impressions have considerable effect on the patient's physical condition. The only relief for the nocturnal pains was given by taking large doses of antipyrin, which patient purchased by the ounce. At this stage I read Chorcot's communication and at once determined to try this new method. The patient, an intelligent man, consented to submit to it, although he seemed doubtful of the result. June 11th the first suspension was attempted by means of Sayre's swing, discarding the arm supporters, the arms resting on his sides (the patient has no heart trouble, and weighs

but 120 lbs., being very thin), he experienced painful difficulty in breathing, so that I had to desist after a half-minutes' suspension; patient was very much exhausted. I followed Charcot's direction and allowed him to recover by resting or sitting on a straight-backed chair. Patient seemed but little pleased by this first attempt, and I confess I was not in the least encouraged to try again, but his statement on the following day, which I am positive was free from exaggeration, revived hope again, for he assured me that he felt very much better, the oppression in his chest had nearly entirely left and his back felt as if a new piece had replaced the old one, in which there had been a sense or feeling of overpowering weakness; claiming that for over one year he had not been able to stand without supporting his back by pressing his hands firmly to his sides, and now he could stand with perfect freedom. He sits upright before me on a chair and emphatically declares that he never could maintain this position heretofore, always helplessly bending over. The effect of this first suspension on my patient I consider was of great importance during the rest of the treatment. During the night following the first suspension, there was a decided change in the temperature, which before was always the precursor of excessive lancinating pains; to patient's surprise and delight, he was nearly free from them. June 12th the second suspension was done, lasting one minute, with no respiratory interference, followed by improvement.

Patient said that his strength had increased wonderfully. He again was able to maintain an upright position and was better able to control his legs. June 14th; third suspension, one minute's duration, difficulty in breathing but slight, again followed by improvement, patient jubliant over his probable recovery. June 14th fourth suspension; one and a-half minutes' duration; respiration normal. From this date until August 1st fifteen more suspensions were practiced, averaging about one minute for each; patient now and then experiencing unpleasant respiratory interference during the procedure; patient declares that he can conscientiously say that, although not entirely recovered, he certainly has not felt so strong and well in the past year. The lancinating pains and feeling of constriction around the waist are very much modified, inconveniencing him but little. His general appearance is much better. I can therefore claim that after six weeks' treatment by suspension there has been a check in the progress of the disease and certainly a decided improvement in all the symptoms, the muscular strength and tonacity, particularly in the legs, is increased, the lancinating pains have partly subsided, and also the sense of constriction or tightness, besides, his gait is more certain when walking with closed eyes.

The particular mode of action of this new method in the treatment of tabes has been explained by various theories. Motchutkowski believes it to be due to the mechanical extension of the body, particularly of the spinal cord, besides the direct stretching of the nerves, the elongation of the larger arteries, with a consequent increase in the blood pressure, possibly may be an additional factor.

Adam Kiewicz, who believes the degeneration of the posterior tract to be due to a destruction of the blood vessels, explains the good effects of the suspension by the increase in the blood pressure of the blood vessels and thus establishing collateral circulation.

Altheus (*Lancet*, April 13, '89,) is of the opinion that during suspension the meningeal adhesion which surrounds the posterior roots are torn, thus removing the existing obstruction to nerve conduction.

Each of these opinions may express something or a part of the truth, the undisputed fact remains notwithstanding that by practising suspension in tabes, a change takes place in the relative position of the spinal cord to the spinal canal which must bring about a stretching of the nerves and blood vessels. I do not, however, attempt to say that this method is a curative remedy for tabes, but I do maintain that it ameliorates many of the painful symptoms of this

disease. In the case just described all the usual methods had been resorted to without giving relief. The nineteen suspensions made a surprising improvement in patient's condition, and therefore in the future I will not fail to try this method in tabes.

Correspondence.

PARIS LETTER.

PARIS, July 30, 1889.

Editor Maryland Medical Journal:

I have been in this alleged American heaven now some three weeks. The Universal Exposition, of couse, is the great attraction and the city is crowded with strangers, and the hotel proprietors, cabmen, shopkeepers, and in fact about all the Parisians make this an excuse to bleed the unfortunate foreigner at every turn. In this connection I might mention a very neat little song I heard the other night at one of the cafés chantants in the Champs Elysées, of which the words of the refrain are *"Pendant l'Exposition il faut souffrir l'imposition."* Still I think the crowding of the hotels has been much exaggerated. I have not heard of any one who had any real difficulty in procuring accommodations. For my own part I find a cordial welcome and plenty of room at my oldhotel in the Latin Quarter.

Paris, of course, is to all intents the same as ten years ago, but of course I see many changes in the buildings, and not a few in the streets. In the neighborhood of the Ecole de Medicine these are very noticeable. The Ecole itself has been enlarhed and the whole square across the street is now taken up with the splendid Ecole Pratique. They were just beginning this improvement when I was here before, and even now not much more than half is finished and in actual use. The new dissecting rooms have, however, been in use several years and are very complete. The pathological department is in operation, but I did not get into it as work was over for the session. The medical journals of this week congratulate the profession on a satisfactory appropriation being granted for the complete furnishing of the physiological laboratory.

The fine library and museum, as well as the Dupuytren museum, are kept open all the year, and on two evenings I have found the library well filleb with workers until 10 P. M., the hour for closing. In addition to the books all the best medical journals, including German, English, Italian and American are to be found there fully accessible to any medical man.

Last Thursday I attended a very interesting clinic by Prof. Luys at La Charité Hospital. The amphitheatre was well filled when I arrived, and among the audience I counted a baker's dozen of ladies and five beside myself whom I knew to be American or Canadian physicians, The Professor began his lecture by telling us how to preserve brain specimens in by-cromate of potash solution and exhibited a number of interesting specimens. While he was talking a young woman came in, nicely dressed in street costume. I at first thought she was a female student, of whom there were one or two present inside the rail. The professor, however, greeted her, invited her to lay aside her hat and then inquired if she had been perfectly well the past week, if she had been entirely free from any ovarian pain or any attack of any sort. Satisfactory answers being given he told her that we would presently have a *Séance* like that of last week and that then she would continue to be perfectly well for the coming week and that meanwhile she should take a seat in that large chair and *"go to sleep."* She sat down, and at the words "go to sleep" she slept instantly and the professor went on with his lecture on the brain, the girl meanwhile sleeping soundly, in a half

sitting position, with her lower jaw dropped, and her head, from time to time, falling to one side or the other. A few minutes later another patient came in and after a few minutes conversation, by a simple suggestion she, too, was put to sleep in another chair.

Luys then gave a short history of the two cases. The first had been under his care a few weeks and had come suffering from violent periodic hysterical attacks. The other was an in patient for some time in the wards, a year ago and had been well since. He then proceeded to exhibit some of the curious things pertaining to the hypnotic state, such as making the patients believe they were students, soldiers, generals, etc. One of them, with a thick wad of cotton over both eyes and a pair of tin spectacles on top, read from a paper handed her from the audience. Luys said he could not explain how this was done.

I think, myself, that in this instance the girl deceived him and peeped under the edge of the cotton with her left eye. Certain muscles were made to contract strongly by passing the fingers near them, and the strength of the contraction of flexors for instance, was shown by the dynamometer to be more than double the ordinary strenth. Finally the patients wese passed through a cataleptic state, and by putting the arms up in fighting attitude the faces assumed suitable expression. One of the assistants then took hold of the raised hand and arm and moved it back and forth to her lips, as if she were kissing her hand to some one on the upper seats of the amphithertre. The face immediately assumed a pleasing expression and was all smiles. He finally awakened them by blowing gently in their faces, and after impresssing on them the fact that they would be quite well the coming week, dismissed them. I could not help wondering what some of our faith-healing and Christian science friends would say to such a performance.

A word only about the eye clinics. There seems to be the same abundance of material as in London. The operating is very much more skillful, as cataracts are almost universally extracted without an iridectomy.

The results are excellent, but I will not bore your general practitioner reader with a specialist letter.

Perhaps you would like to hear something of the exposition. I am not at all equal to writing that up, but may say briefly that the Eiffel Tower is immense, and the Exposition as a whole a great success. In the building allotted to the liberal arts and sciences, a considerable space is taken up with a medical and surgical department. The display of surgical instruments of Collin and Mathieu and Lüer I am sure cannot be excelled. A case of anatomical preparations sent by Prof. Laskowski, of Geneva, interested me very much. There were dissections of whole extremities, some of them made as long as sixty years ago, and the soft parts, muscles, nerves and ligaments, are soft and pliable and perfectly preserved. The ladies of the Red Cross League have a fine exhibit of their appliances for ministering to the needs of the wounded, especially in the way of most approved dressings and bandages.

In speaking of the changes about the ecolè de medicine, I ought to have mentioned a fine bronze statue of Paul Broca, whose clinics I attended regularly in '79, which is placed in the little triangular space at the junction of Boulevard St. Germain and Rue de 'l Ecolè de Medicine.

I will go to Berlin by way of Heidelberg, the last of the month, and will perhaps write again from there.

Truly yours,

HERBERT HARLAN.

The U. S. Grant University has organized a medical school, with a complete faculty, at Chattanooga, and the winter course opens on October 7th.

MARYLAND MEDICAL JOURNAL

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WILLIAM B. CANFIELD, A.M., M.D., Editor.

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BALTIMORE, AUGUST 31, 1889.

Editorial.

COPAIBA AS A DRESSING FOR WOUNDS.—The literary physician, in searching the writings of practitioners of by-gone ages, not only obtains a pleasant diversion of the thoughts, but also finds suggestions which may be of great value to him in his practice. Many valuable discoveries of ancient times lie covered with the dust of neglect and prejudice ready to reveal themselves to him who, not satisfied with the changing fashions of the day, seeks among the records of past experience the trusty agents with which the great fathers of medicine met and conquered disease.

In the *Boston Medical and Surgical Journal*, August 8, 1889, Dr. Beach of the Massachusetts General Hospital tells how he was induced, by reading the experiences of a practitioner of 1755, to try the balsam of copaiba as a local application to wounds. He used it first upon an indolent granulating surface, applying it upon an absorbent dressing, which was saturated with the balsam and then squeezed tightly to drive off the excess of the drug. The unusually rapid growth of rosy granulations was so evidently due to it that he was encouraged to emyloy it more generally, and finally adopted it as his regular dressing for granulating surfaces. His colleagues have also begun to use it in their wards. It is especially suited to the flat, pale, gratulating surfaces that generally result from avulsions of the scalp, to extensive burns and scalds and to the cavities left after the removal or carious or necrosed bone. At the Hospital it is applied on cotton-waste, which is first picked apart and cut into bits by the convalescent patients. The balsam is absorbed by this porous dressing which it partially disinfects and to which it imparts a fragrant smell.

Thinking that the good results obtained might be due to the copaibic acid contained in the balsam, Dr. Beach experimented with the acid, but he found that it had no good influence on the wounds. The copaiba balsam dressing is cheap, simple and quickly prepared.

"STUDIES in Clinical Medicine" is the title of a semi-monthly journal which will be edited by Dr. Byrom Bramwell, the pathologist anb clinician of the Durham University Medical School. Mr Jonathan Hutchinson proposes to issue a quarterly, called the "Archives of Surgery" It will contain the cream of his voluminous notebooks, and will have colored and other illustrations. His expectations is to continue the publication not longer than four years.

Miscellany.

The Effects of Tight Clothing.—Now that rational ideas as to dress have acquired a definite place in public esteem, it may be imagined that the practice of tight lacing and customs of a like nature, if known at all, are not what they used to be. A case of sudden death lately reported from Birmingham proves that it is still too early to indulge in such illusory ideas. The deceased, a servant girl of excitable temperment, died suddenly in an epileptoid fit, and the evidence given before the coroner respecting her attributed the fatal issue to asphyxia, due in a great measure to the fact that both neck and waist were unnaturally constricted by her clothing, the former by a tight collar, the latter by a belt worn under the stays. We have here certainly those very conditions which would lead us to expect the worst possible consequences from a convulsive seizure. There is no organ of the body whose free movement is at such times more important than the heart. Yet here we find, on the one hand, its movements hampered by a tight girdle so placed that it could with difficulty be undone at a critical moment; on the other, a contrivance admirably adapted to allow the passage of blood to the brain, while impeding its return. This is no isolated case as regards its essential character, though, happily, somewhat singular in its termination. Minor degrees of asphyxiation, we fear, are still submitted to by a good many of the self-torturing children of vanity. The tight corset and the high heel still work mischief on the bodies of their devoted wearers. Taste and reason, indeed, combine to deprecate their injurious and vulgar bondage, and by no means unsuccessfully. Still, the evil maintains itself. Cases like that above mentioned ought to, if they do not, open the eyes of some self-worshippers of the other sex who heedlessly strive by such means to excel in a sickly grace. We would strongly impress on all of this class the fact that beauty is impossible without health and would advise them, in the name of taste as well as comfort, to avoid those methods of contortion, one and all, by which elegance is only caricatured, and health may be painfully and permanently injured.—*Lancet.*

Preliminary Programme of the American Pædiatric Society.—*Organized in Washington, D. C., September* 18, 1888.—The meetings will be held at the Army Museum Building, Washington, D. C., on the 20th and 21st of September, 1889. One of the afternoon meetings will be held in the Johns Hopkins Hospital, Baltimore, Md., by invitation of the Directors of the Hospital. Papers: Address by the President. A. D. Blackador, Montreal: Notes on a case of Ataxia in a child of ten years. W. D. Booker, Baltimore: A Study of some of the Bacteria found in the dejecta of infants afflicted with summer diarrhœa (second communication). Dillon Brown, New York: Noisy respiration. A. Caillé, New York: Prolapsus recti due to large stone in the bladder in a girl three years old. Two cases of Nystagmus associated with choreic movement of the head in rhachitic babies. Septic Diphtheria with unusual sequlæ. Personal prophylaxis in diphtheria. Charles Warrington Earle, Chicago: Subcutaneous Emphysema in children. The necessity of prolonged rest after some attacks of Diphtheria. Two cases of carpo pedal contraction. J. Henry Fruitnight, New York: The treatment of Scarlet Fever and its complications. Francis Huber, New York: Spurious Meningocele. Double Empyema. A. Jacobi, New York: Aneurism in early life. John A. Jeffries, Boston (by invitation): A contribution to the summer diarrhœas of infancy. H. Koplik, New York: Tuberculosis of the testis in childhood. Thos. S. Latimer, Baltimore: Cases of Spastic Paraplegia. I. N. Love, St. Louis: Scarlet Fever. Arthur V. Meigs, Philadelphia: The Artificial Feeding of Infants. W. T. Northrup, New York. J. O'Dwyer, New York: Case of Diaphragmatic Hernia, with operation. The apparent physical contradiction involved in the reinflation of a collapsed lung while an opening remains in the pleural sac. Wm. Osler,

Baltimore: A case of simple Muscular Atrophy of the facio-scapulo-humeral type. Cerebral Sclerosis in children, A. Siebert, New York: Diphtheria. J. L. Smith, New York. H. N. Vineberg. New York: Some practical points on the diagnosis and treatment of malaria in children. V. W. Vaughan, Aun Arbor. A. Jacobi, President; Thos. L. Latimer, Chairman Committee of Arrangements; Wm. D. Booker, 851 Park Avenue, Baltimore, Md.

Deathbed Confessions.—A protest was not long since raised against a too ready acceptance of a dying declaration as necessarily true, and it was urged that, owing to his enfeebled condition, the mind of the dying person could seldom be in that clear state so necesssry for a strict adhesion to absolute facts. But a distinction must be made between dying declarations and dying confessions. In the former, the person can have but little motive for not speaking the truth, and, if the medical man who received the declaration thought that the dying man was not in full possession of all his mental faculties, he ought to say so; but in regard to deathbed confessions, motives often do play a very important part. A single instance recently narrated in an American contemporary by Dr. Benjamin Cotting, will suffice. A man under sentence of death for murder confessed to having committed another murder two years previously. In this case the victim's skull had been beaten in, and the murderer stated where he had hidden the hammer with which he had done the deed. The discovery of a hammer at the spot indicated by the criminal seemed to lend great plausibility to the confession; but Dr. Cotting had examined minutely the wounds on the murdered woman, which were peculiar, consisting of numerous clean, sharply cut, crescentic wounds, such as might have been inflicted with a turner's gouge, but could not by any possibility have been produced by the hammer in question. The criminal had in reality had nothing to do with this first murder, and it was evident that he had only made the statement in the hope that some well-disposed but foolish people would take up his case and urge that a monster who could be guilty of such atrocious crimes could not be in his right mind, and thus obtain an acquittal for him on the ground of insanity. Such a train of events had, indeed, happened a short time before his conviction in the case of another murderer. It may be urged that such a confession as this ought not to be compared with one made by a person dying from disease; but to this we would say that to the condemned criminal the fear of death must be quite as near and as real as to the person on his deathbed from a natural cause. It can easily be understood that other motives might be at work to influence the dying person to make an untrue statement in his confession; and, indeed, it might well be said that a person who could alone or in consort with others take the life of a fellowman would not be likely to stick at a lie on his deathbed if it could save a companion or confederate from the gallows. —*Brit. Med. Jour.*

Pasteur's Latest Returns.—From May 1, 1888, to May 1, 1889, 1.673 persons, bitten by rabid or presumably (*très suspects de rage*), rabid dogs, had been treated, 1,487 being French and 186 foreigners. Of this total number, 118 were bitten on the head or face. Six cases, four of which had received bites on the head or face and two on the limbs, were attacked with rabies during the treatment and died, four others developed the disease within a fortnight after leaving the Institute, the treatment having been discontinued. Three patients died of rabies after the complete conclusion of the treatment, and these, therefore, represent the number in which the treatment actually proved unsuccessful—a ratio of 1 in 554. If, however, one should also include the ten other deaths, "which," Dr. Pasteur naively adds, "would be illogical," the mortality would still only be 1 in 128.—*Med. News.*

Medical Items.

The brother of Professor Hayem of Paris has committed suicide.

Dr. Felix of Würzburg has been appointed Prosector of the Anatomical Institute at Zurich.

Dr. Sidney Ringer of London has been elected Corresponding Member of the Academy of Medicine of Paris.

Acting assistant surgeon Montanye, of the Marine Hospital Service, died in San Francisco on Angust 13th.

The Pennsylvania Institution for the Deaf and Dumb and the New York Cancer Hospltal are both to be enlarged.

Dr. J. R. Taylor, of Phillipsburg, Pa., has been elected to the chair of Pathology and Practice of Medicine in the Medical College of South Carolina.

The Empress of Japan takes a great interest in the weltare of her suffering subjects. In a year she has contributed $7,500 out of her "pin money" to assist the Tokio Female Hospital in its good work.

Dr. Joseph F. Perkins was present at the recent meeting of the British Medical Association, as a delegate to that body from the Medical and Chirurgical State Faculty of Maryland.

M. Pasteur has receivcd from the Edinburg University, the Cameron Prize in Therapeutics, in recognition of the high importance and great value to practical therapeutics of the treatment of hydrophobia discovered by him.

In the week ending July 23d, there were thirteen deaths from sunstroke in New Orleans, a very large number for that city, where deaths from this cause are much less frequent than during the heated spell in our nothern climate.

A serious epidemic of small-pox is reported to have broken out at Aalborg, in Jutland, a number of fresh cases having been recorded every day for some time past. The police authorities have in consequence prohibited all public meetings and concerts in the town until further notice.

The next annual meeting of the American Dermatological Association will be held in Boston, during the three days beginning September 17th. For particulars, abdress Dr. George H. Tilden, of No. 122 Marlboro Street, Boston, secretary and treasurer.

Charing-Cross Hospital, in London, gives a short post-graduate course; but this is said to be the only facility offered in that city for post-graduate instruction, and it is suggested that a school similar to those in New York, Vienna, and Berlin be established there.

A correspondent asks why London does not have more post-graduate courses like those at Vienna, and in the last *Lancet* Dr. Vincent Harris announces a course on chest diseases at the City (of London Hospital for Diseases of the Chest. This is an example which other hospitals and dispensaries would do well to follow.

There are between 400 and 500 cases of fever in Philadelphia, many of them in the Kensington district. Twenty new cases having occurred in that district, the authorities have taken steps to discontinue the use of some part of the water supply that contains Delaware River water of a suspicious character.

The Baly Memorial of the Royal College of Physicians has been awarded to Dr. Heidenhain, of Dresden. It consists of a gold medal, and is issued every second year for some noteworthy accomplishment in physiology. Bernard, Darwin, Brown-Séquard, and Ferrier have been among those who have received the Baly medal.

By the will of the late philanthropist, John W. McCoy, the Johns Hopkins University will have the interest and eventually the principal of $250,000. Many institutions receive legacies of $3,000 each and among them St. Joseph's German Hospital Presbyterian Eye, Ear and Throat Charity Hospital and the Baltimore Eye, Ear and Throat Charity Hospital; also his library is left to the Johns Hopkins University.

Original Articles

THE TREATMENT OF SUCH EAR DISEASES AS ARE USUALLY SEEN BY THE GENERAL PRACTITIONER.

BY HIRAM WOODS, M. D.,
BALTIMORE, MD.

Assistant Surgeon at the Presbyterian Eye, Ear and Throat Hospital, and Prof. of Diseases of the Eye and Ear at the Woman's Medical College, Baltimore.

THE EXAMINATION OF THE EAR. USE OF THE EAR SYRINGE. PAPER I.

It has been suggested to me that a series of short papers on the above theme would be of interest to the readers of the JOURNAL. There are some ear diseases in which the only symptom inducing the patient to seek advice is loss or impairment of hearing. Some of these cases are curable; some are not. Specialists and dispensaries for treating special diseases are, however, so numerous that most persons thus afflicted do not seek advice from the general practitioner. I do not propose to speak of these troubles to any extent, nor will any but an incidental notice be taken of those ear diseases which require a special training for their correct diagnosis and treatment. Such cases, in my opinion, are most of the operative methods of treatment; for instance, the removal of granulation tissue from the tympanum, paracentesis of the drum, opening of the mastoid cells, etc. Outside of these two classes of cases, there are many patients who, for one reason or another, usually *first* come under the general practitioner's care, even if they afterwards consult the aurist. With the exception of impacted cerumen or foreign bodies in the canal, these patients usually suffer from *inflammatory* diseases of the ear. Some of these are so closely connected with certain general diseases, and so much of the future usefulness of the ear depends upon the treatment instituted *at the outset*, that every general practitioner should be familiar with their symptoms and know how to meet them. This will be more apparent when we reach the middle ear. It is to the management of these troubles that most attention will be given, and the methods of treatment advised will be largely those employed in hospital practice. I shall try, to arrange the subjects in accordance with the order observed by Dr. D. B. St. John Roosa, of New York, in his "Treatise on the Diseases of the Ear." This plan is adopted because it is possible that some one may wish to follow up a subject touched upon. Dr Roosa's book is selected because I have found it of incalculable service and believe it is a safe guide.

1. *Methods of Examining the Ear.*—No examination of an ear can be made unless the examiner has a head reflector and a nest of ear specula. This remark is not as unnecessary as it may at first appear. I believe the most common method of examining the ear is to put the patient near a window, with the affected ear toward the light, and for the examiner to then pull back the auricle and "look in." He cannot possibly see down to the bottom of the canal in this way. The light should fall upon a reflector, and be thus sent into the ear through a bright speculum which dilates and straightens the canal. The introduction of the speculum is a matter which requires some care. It must be remembered that, except rarely, the canal is not straight. Its usual course is slightly upwards, through the cartilaginous one-half inch, and forwards and downwards for the remaining three-fourths of an inch, the bony portion. Often little furuncles appear just at the turn, and a rough thrust of the speculum will produce severe pain. Even if there is no inflammation, there is no necessity of abrading the skin of the canal. The examination with the speculum and reflector reveals the condition of the canal and the drum. The light gray drum inclined from above inwards and forewards, should come clearly into view unless there is some obstruction in the canal. By telling the patient to "blow hard" while he tightly holds his nostrils and closes his mouth,(Valsalvian experiment), the drum being kept clearly in view, an idea may be gained of

the permeability of the Eustachian tubes. The drum will move outwards if the air enters the tympanum and the membrane is not held down by adhesions.

Tests of the Hearing.—This is often an important aid in diagnosticating the locality of an ear disease. Although not entirely satisfactory, the watch is the test most commonly used. Dr. Roosa thinks that most watches should be clearly heard by a normal ear at 48 inches. My own has repeatedly been heard at 55 or 60, although I use 48 as a standard. The acuteness of a patient's hearing (for the *watch*), is easily expressed by a common fraction, in which the denominator represents the distance for a normal ear, the numerator the distance at which the ear under examination hears the tick; thus: $\frac{10}{48}$ means the watch is heard at 10 inches; $\frac{c}{48}$, that it is only heard on "contact;" $\frac{o}{48}$, that it is not heard at all. In making the watch test, it is necessary to determine the far point by *approaching* the watch *to* the ear; not by commencing near the ear and then receding.

The tuning-fork is a useful diagnostic agent, in that it determines for us whether we have a disease of the aconstic nerve or middle ear. It is generally accepted that if the hearing is impaired, the fork is heard louder and longer by *bone* conduction in middle ear troubles, and by aerial conduction if the nerve be involved; the latter condition being often secondary to middle ear disease.

2. *The Use of the Ear Syringe.*—Probably few directions are more commonly given to patients than "to buy a syringe and wash the ear." It is useless to give such directions unless the patient is taught how to syringe the ear. Almost daily do I see at the hospital persons who have been "*washing*" bad smelling ears for some time, while the ear is found in a filthy condition. Nearly all the ear syringes sold by druggists are worthless. They usually consist of a small glass cylinder, which will hold about 2 or 3 drams. The most useful ear syringe I know of for the patient's use is the "RubberBulbEye and Ear Syringe No. 509." It holds about 2 ounces, is easily managed and is cheap. After specifying the kind of syringe, the patient must be taught how to use it. I do not think that, as a rule, one can thoroughly clean his own ear. It is always best to have some one, carefully instructed, do it for him. An important thing in syringing the ear is to straighten the canal, for the pus or other matter we are after is at the bottom of the canal, or possibly in the tympanum. The curvature of the canal is easily obliterated by pulling the pinna backwards, upwards and outwards. In this way a straight passage is made down to the tympanum. One hand should hold the pinna in this position while the other manipulates the syringe.

Is there any danger of putting the ear syringe in the hands of a patient? Some of our best men think there is. Burnett disapproves of its use in the treatment of otorrhœa, except in very rare instances. Buck thinks that cerumenous deposits should be removed by the scoop and not by the syringe. It is thought by those who disapprove of the syringe that the force of water impinging upon the drum, or upon the "promontory" in cases of the loss of this membrane, may do serious harm; that this is shown by the occasional attacks of vertigo and fainting seen after syringing; that in "otorrhœa" the syringe keeps up the discharge by producing granulations, through furnishing moisture to the heated drum cavity. These and other objections to the syringe have been raised by Burnett, Buck, Todd and others. No doubt the water is capable of doing harm in certain cases, but I believe they are very rare Dr. Roosa recommends that the first stream of water be sent into the concha of the ear, and afterwards directed into the canal. Care should be taken that the water is lukewarm—neither cold nor hot. I have used the syringe daily, for some time, and still do so. In a very few cases I have seen vertigo follow its use, and in one patient—a young man with otorrhœa—I had to discontinue it because it repeatedly caused fainting spells. Three months after the cure of this otorrhœa, I used it without any discomfort on his part. I have never seen any permanent harm follow its use. At present, I always use it for the removal of impacted cerumen, unless

the plug is unusually hard. It is, I think, the safest and most efficacious means at our command for removing the large majority of foreign bodies. In the treatment of otorrhœa, I use it without hesitation if there is a bad odor to the discharge, and also if the discharge is so abundant as to require a larger number of "wipings" to clean the tympanum. As will be seen later, I believe in the "dry treatment" of otorrhœa when it can be used; but absolute cleanliness is necessary even in this method, and this, I think, can best be obtained by previous syringings. As to "home cleaning," I have found that the use of the syringe is much more easily learned than the proper application of the cotton pencil to the tympanum. I have repeatedly had patients complain of the pain caused by their nurses' unskillful introduction of the cotton pencil into the ear. Before allowing any one else to syringe an ear, however, the medical attendant should always first do it himself, to ascertain if the patient can tolerate it. This done and the nurse properly instructed, better results seem to me to follow in *home treatment*, from the use of the syringe and liquid medication than from dry cleaning and powders.

SALINES IN PERITONITIS.*

BY G. W. MILTENBERGER, M. D.

As much as has been written and published upon the diseases of the puerperium, there is no subject which exerts the same fascination for the zealous and intelligent observer, and offers so wide and rich a field for thought and study as puerperal septicæmia, in the varied forms in which from time to time it is presented to us.

Its history, its etiology, its clinical manifestations, its almost limitless pathological lesions, its essential cause and nature, its contagiousness or non-contagiousness; its terrible fatality at times and for long periods, (Prussia) exceeding the combined mortality of small-pox and cholera; the infinite variety of its therapeutics from year to year, or from epidemic to epidemic, and the apparent or indeed actual inutility of all methods to relieve the disease, or arrest its progress, though the greater part of it recorded history; the fact that the scourge continued throughout the civilized world, until suffering and death absolutely forced upon the profession the preventive methods which have alone stayed its ravages; the farther fact that to its study (Semelweiss) really belonged the credit of having discovered and pointed out the new doctrine of infection, disinfection and prevention; the prominent part which it has played in the elucidation and establishment of the microbic origin of disease, and the question still mooted, as to whether the microbe or the ptomaine which is the result of its life history, is the immediate cause of blood empoisonment, afford us at every step and stage of the process an inexhaustible field for the exercise of the highest attributes of the intelligent and conscientious physician.

The field is so wide and extensive that volumes might still be written, and days and nights of anxious toil be spent in its elucidation, and there is no single point of its history which would not require far more time than we have this evening at our disposal.

I would now ask your attention to but one single point, and that purely and entirely practical, and in connection with that most important consideration, its therapeutic management.

We all know how often the poison, whatever we believe its source, expends its influence upon the serous membranes, especially the peritoneum; so much so that by many of the most astute clinicians and most capable pathologists puerperal fever and puerperal peritonitis were considered synonymous.

We equally well know that in certain epidemics it was recorded that venesection was the only sheet-anchor, and that no woman was saved without it; while

*Read before the Gynæcological Soc'ety ofBaltimore, May 14th, 1889.

in others it was equally positively asserted that every woman died when it was employed.

In others, alteratives and purgatives were relied upon, and for a time in certain continental hospitals the principal question asked by the obstetrician at his daily visit was as to the number and frequency of the evacuations during the twenty-four hours, and upon this he founded his favorable or unfavorable prognosis. Again we have the opium treatment, so ably promulgated by Alonzo Clark and apparently so logical and in many cases so satisfactory, while at the opposite end of the scale in some epidemics it has been insisted that a dose of Dover's powder cut short the disease. And now when we firmly believed in the opium treatment, when we were taught to splint, as it were, the inflamed tissues and we deemed this object logical and that its result was proved; when, according to Clark, we gave our two grains of opium every two hours, or if this did not suffice pushed it to the point of entirely overcoming spontaneous pain, and if we could even tenderness on pressure; when we did not hesitate to give it in enormous doses until it reduced the respiration to 12 in the minute or even lower; there comes within the last few years that bold and fearless surgeon, who has made the field of abdominal surgery his own, with his wondrous touch, his almost marvelous operative skill and equally marvelous results—Lawson Tait—and tells us the pendulum must swing backward, that history must repeat itself, that opium in these cases of peritonitis (septic) is always injurious, and in this latter assertion he is now being rapidly supported by a larger and larger proportion of abdominal surgeons, and that we must again return to the purgative plan, by means of salines.

Fortunately my personal knowledge of septic peritonitis has been comparatively limited, but a short time before the enumeration of this new or revived doctrine, I had seen a case following abdominal operation which obstinately and fatally resisted the opium treatment although heroically pushed.

With this case impressed upon my mind, shortly after Mr. Tait's publication, I was called in consultaion to see Mrs. C. with puerperal peritonitis, which for 48 hours had resisted opium in large doses, with quinine as an antipyretic. I told the attending physician that I had no personal experience of this mode of treatment, but thought that the circumstances fully warranted its trial. With two drachm doses of the tartrate of potash and soda every two hours, the pulse and temperature both subsided as soon as full purgation followed and convalesence was at once established. Two months later I was called to see Mrs. M. in the same condition, with the same history, and the result of treatment was identical with the former. During this time several had reported cases of like character, in which the therapeusis had been equally successful.

In this connection I may mention an interesting experience in my own person within the past two months. Having felt unwell on the 25th and 26th of March, I left home on the morning of the 27th at 9½ A. M. feeling some pain in the right hypochondrium.

While with the first patient visited, it became aggravated, so that I hurried through my visit; but having another patient some four or five squares distant, I started for the latter.

Before I had driven two squares, the pain became so intense, aggravated by the motion of the carriage, that I was forced to return home at once. The pain was over the region of the liver, extending over the epigastrium, intensely sharp, acute, agonizing, increased by movement, and absolutely unbearable when I attempted to take a full breath at every descent of the diaphragm. The pulse quickened and faltered, the skin was cold, respiration short and gasping, with tenderness on pressure, and a feeling of threatened syncope. It was with difficulty that I reached home and was assisted to my chamber. The impression on my mind was that it was a perihepatitis.

It required two full hypodermics of morphia to ease the pain and permit me to breathe. Under advice, I took Quinine

every 3 hours, and a hypodermic of morphia was given in the evening to enable me to examine my class, which I was obliged to do, still in bed.

The following day pain was persistent, but, while resting in bed, bearable, and pulse and temperature were rising. I, however, forced myself, in the evening, to go down to the office, where I remained continuously for six hours and a half—from 7 P. M. to 1.30 A. M.; pulse during this time 120, temperature 102½° to 103°. I was now suffering worse than ever, and could hardly reach my chamber.

And now came on the most agonizing pain in my right shoulder, which prevented my lying down.

Unwilling to keep myself under the influence of opium, and having derived no benefit from the quinine, I commenced the use of the salines, two drachms of Rochelle salts every two hours, taking the first dose at 1.30 A. M., of the 29th.

After taking a full ounce, the fourth and last dose at 7.30 A. M., free serous discharges from the bowels began, and within an hour pulse went down to 108, temperature over a degree, pain abated, and convalescence was fairly established, and continued without further medication.

It was, I assure you, an interesting experience to me. We have been taught the use of opium to control that most important factor, pain, and to splint the inflamed tissues, and prevent, in this view, peristalsis. In speaking of this treatment to my professional friends, almost universally have they insisted upon this point, that the peristaltic action of the intestines couldonly aggravatepain and inflammation. I watched this point carefully, but with the serous discharges there was no increase of pain, and direct my attention to it as determinedly as I could, I failed to detect by sensation any intestinal contractions. It was simply a serous hemorrhage from the vessels of the inflamed tissues, poured from the bowels with the greatest relief, and without any consciousness of irritation whatever.

The observation and experience fully repaid me for all I had suffered.

Some days after I resumed business, I saw a case with the following history: she was a primipara, who had a normal labour; she was pale, anæmic, and seemed broken down before her confinement. After labour she had sapræmia, from which, after ordinary treatment, she recovered; but of course still further enfeebled, anæmic and broken down. For four days after this her pulse and temperature were absolutely and continuously normal, and she was thenpermitted to leave her bed, being cautioned to make no exertion and to be careful as to her diet; she, however, did exert herself about her room, and committed gross dietetic errors. The same evening she was seized with a severe, determined chill, followed by high fever, pulse 120 to 130, temperature 104°. Vaginal antiseptics irrigations were at once resumed; opium and quinine were given freely. Twenty-four hours later, there was no improvement, and the abdomen became tympanitic.

The following morning, about forty hours from the inception of the attack, Dr. Neale and myself found her in this condition, with the addition of irritability of stomach.

Examination revealed a pelvi-peritonitis. Now, here was a woman exhausted before labor, who had gone through an attack of sapræmia, followed after an interval of four days by localized peritonitis, now extending, and with gastric irritability, so that it was with difficulty she could take and retain medicine or nourishment. I advised the withdrawal of the opium and quinine and the disuse of the antiseptic injections, merely using hot water vaginal irrigations and the Rochelle salts as in the other cases. As soon as serous diarrhœa was established, all of her unpleasant symptoms abated and soon disappeared. In this case, she was so sensible of relief that she asked for the continuance of the drug, even after we considered it unnecessary.

It is true that the sum of my experience is small, that these cases are but few, that from them alone we would not

be justified in formulating a treatment of so serious and too often so fatal a complication.

But, while I must apologize for the scarcity of my material on so important a point of therapeutics, which must ultimately be settled by amount and weight of observation and experience, I deem it the duty of every one to add his mite, however small, to the general mass, upon which the decision, whether pro or con, must at last depend.

A CASE OF TUBAL PREGNANCY TERMINATING SPONTANEOUSLY PER VAGINUM.*

BY P. C. WILLIAMS, M. D.

January 29th, 1889. I was called to see Mrs. B., whom I had attended in 1888 for a severe vaginismus, which had been greatly relieved when I left Baltimore, in September, 1888.

I found Mrs. B. much improved in appearance since I had seen her in September.

She had gained much in strength, had an excellent color, and was able to exercise with more comfort than she had done for many months.

I was surprised when she told me that she thought she was pregnant, and she desired me to ascertain whether it was true.

Upon enquiry, she informed me that she had menstruated freely about the *middle of October*; had not menstruated in November or December, but during this time she had decided leucorrhœal discharge, which was frequently colored either *red or brown*. At the time of my visit (Jan. 29), her strength and appetite were good, her figure plump and full, and her color excellent. There was also increased fullness of the mammary glands, but there was no "morning sickness," or nausea at any time.

External examination revealed nothing —but increased fullness of abdomen, and *tenderness over the pubic region*. Examination with speculum revealed vagina and labia of natural color; the Cervix uteri normal in size, but rather *soft* to the touch; the os uteri *patulous* and emitting a free mucuous discharge.

Under such conditions, I felt satisfied that she was not pregnant, and so stated to Mrs. B.

She still insisted that she must be pregnant, and wished me to explain her failure to menstruate during the past two months, and her increased fullness of abdomen and breasts. This I was unable to do.

During the month of February I kept her under observation. During this time there was a gradual but steady increase of more or less bloody mucus, accompanied with pain of considerable severity, which she always located "in the region of the bladder."

During the latter part of February, I found increased fullness and hardness over the pubic region, extending towards the left side, and thought that I could detect the outline of a fœtus. Further examination proved this to *be true*.

After careful external examination, I inserted two fingers of my left hand into the anterior "cul de sac" and then by steady pressure upon the abdomen with my right hand I could distinctly feel a tumor descend upon the fingers of my left hand, and thus produced true abdominal ballottment. By cautious pressure with my hands—one in the vagina and one on the abdomen—I could readily recognize the outlines of the body and limbs of the fœtus.

Being thus satisfied that she was pregnant, and also feeling convinced that the fœtus could not be *in utero*, I determined to settle that question. Accordingly I inserted a vaginal suppository about two inches long, that I had been using to allay the pain, into the cavity of the uterus. It entered the *os* with great facility, and this induced me to insert my finger *in utero*, which proved beyond all doubt that the uterus contained no fœtus. This convinced me that it was a case of extra uterine pregnancy. Furthermore, the steady increase

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of bloody discharge from the vagina led me to suppose that I had to deal with a case of *tubal* pregnancy, with the fœtus just outside the left *horn* of the uterus.

This bloody discharge persisted with more or less abundance during the month of March, and about the 20th of the month the pain became more and more severe, and required large doses of opium to restrain it within the limits of endurance.

At this juncture (viz.: early in March), I communicated my opinion to Prof. Howard, and told him that I would probably have to call upon him to relieve my patient by laparotomy.

Being anxious to save my patient from the burden of thinking over the impending operation, I determined not to inform the family of her grave condition until circumstances would demand active intervention.

Finding, however, that my reticence subjected me to very severe criticism from friends outside of the family, I concluded that I ought to explain the situation to her husband. This I did fully, on the evening of March 30th. Early the next morning, April 1st, her husband came for me and said that his wife had suffered intense pain all night, and that the anodynes could not control it.

I went with him immedeiately, thinking that the time for the laparotomy had come.

When I reached the house, I found her suffering great agony. I at once put her under chloroform, and proceeded to examine per vaginum. I introduced my finger *in utero*, and to my great surprise and unutterable relief, I found that the fœtus was *in utero*, and my patient *was in labor!* After three hours she expelled a fœtus about *four months old*, which gave feeble evidences of life, and then expired. The placenta was extracted by *gentle, continuous* traction upon the Cord. There was only a slight hemorrhage after the expulsion of the placenta, and it gradually diminished under the use of ergot until it assumed the quantity and quality of ordinary lochial discharge.

For some days there remained an area of induration, about the size of my hand, in the left iliac region.

The induration gradually decreased in size, until to-day (May 10th), there is a hardness, resembling a small tumor about the size of an English walnut, a little to the left of the median line, and about half way between the umbilicus and the pubis.

With this exception, my patient has returned to her normal condition, and I hope will soon be able to resume her household duties.

Thus has terminated favorably a case unique in my experience, and one that caused me grave anxiety for many weeks.

REMARKS UPON FEMALE STERILITY.

BY GEORGE WOODRUFF JOHNSTON, M. D., WASHINGTON, D. C.

It may be safely said that the female sex, upon one point at least, can easily be divided into three classes, namely: into that which desires to have children; that which does not desire to have children, and that which is indifferent upon the subject of maternity. The latter class need not for the present concern us, so that there is left for immediate consideration those women who are vexing their minds because they are sterile, and those who are rejoicing in their unfruitfulness or are exhausting their inventiveness in the endeavor to prevent conception. As a rule the physician is most anxiously consulted by those who are eager to attain two diametrically opposite ends. He is either asked to suggest a new expedient to make sexual intercourse, except for the momentary enjoyment accompanying it, barren in its results, or to discover and remedy some unknown condition which stands in the way of the fulfilment of marital hopes. We know very well what means are employed to prevent conception, and what the feelings of the physician are when asked

to prostitute his knowledge to any such base purpose.

But what is to be done with the other seekers after help; the women who long to become mothers; who feel that the opprobrium of barrenness which rests like a curse upon the unfruitful of certain lands and races, in a less degree perhaps, but still heavily, rests upon them; who dread or experience a husband's disappointment; who brood upon their misfortune until it takes possession of them, disturbs their happiness, and leads in many instances to confined peevishness and discontent, and in some to serious and permanent mental perversion. Even to-day, that like every other day upon which the sun has risen and set since the making of the world, is universally acknowledged to be a time of dire immorality, there are still certain individuals who are happily united, and who desire that their union may not be fruitless. Whether this desire is a simple wish or the most intense longing, it is the duty of the physician to set himself actively to work to discover and if possible to remove the existing sterlity. In so doing he accomplishes a two-fold object; for not only is a state of morbid dissatisfaction supplanted by one of gratified feeling, with a corresponding improvement in the condition of the entire nervous system, but in many instances a local pathological change which set a bar to child-bearing is forever done away with, a condition which has caused already, or in the future is destined to cause or aggravate other perversions of function, if not actual diseases.

Excluding the large number of cases of unfruitfulness in which the male is at fault, and confining ourselves to a study of the functional disorders and pathological states in the female which find expression in sterility, we are met at once with a large array of figures and facts. For a review of any comprehensive treatise upon the subject of female sterility will show us that there is hardly an affection of the genital apparatus or of the body at large which is not said to promote directly or indirectly the condition of barrenness. Far-fetched as some of these so-called causes of sterility would seem at first sight, it should not be forgotten that it requires very little to disturb a process so complex and made up of so many factors as that of fructification.

The man and wife should be actuated by the necessary degree of sexual reciprocity; cohabitation as a mechanical process should be completely performed; the genital passages of the female should be sufficiently healthy to prevent premature escape or death of the seminal elements and to afford a satisfactory nidus for the attachment and growth of the fertilized ovum. Ova of the proper degree of vitality should exist. They should not be hindered in their passage downward from the ovary, and the spermatazœ should be able to gain aecess to them within a reasonable time after sexual intercourse.

In fact infertility in the female *may* be produced by almost any general or local derangement, and considering the the great frequeney of econstitutional ill-health and of local disease in women it sometimes seems surprising that any of them should conceive at all. Yet with this vast array of possibilities before us I know of no task more difficult than the tracing out and ultimate determination of the cause or causes of sterility in a concrete case.

It is this large number and great variety of possible causes which seems to hinder us in the seeking and finding of the true cause. We are so apt to be led astray, to be too easily satisfied in our minds, to inquire, for example, that because vaginismus exists that there the trouble lies, while after all it may be in some pathological alteration of a more deep seated portion of the genital apparatus. In most cases, also, it is not one single obstacle which prevents impregnation, but a group of obstacles, some of which may have no connection with others.

Multifarious as the causes of sterility may be, and hard as it is to discover a woman who does not afford an illustration of one or more of them, yet I have no doubt we have all examined women who have come to us complaining of

sterility, and yet after exhausting all our skill, have been as much in the dark as to the true etiological factor as we were before the examination was undertaken.

On the other hand it sometimes appears as if some individuals bear children, who, according to what we have been taught and what gynecologists daily observe, never should have become pregnant at all In dispensaries where we have all had frequent opportunities of examining prostitutes who, after contracting nearly every local disease which could possibly prevent conception, and after repeated sexual intercourse with individuals, a large majority of whom have likewise suffered with diseases of the genitalia, yet became pregnant.

It would seem, therefore, that on the one hand an immense variety of functional and pathological aberrations acting alone or together, and some of them of the most trifling moment, may absolutely prevent conception, when it is anxiously wished for and repeadedly sought after under the most favorable circumstances. While on the other hand it appears that impregnation may take place when both parties to the sexual act have suffered from diseases of the genito-urinary apparatus, which, so far as we can discover, have seriously crippled or absolutely nullified their effectiveness as organs of reproduction.

It is astonishing how easy of recognition and removal the causes of sterility sometimes are. At this moment I can recall numerous individuals that I have seen within the last twelve months who remained sterile during many years of married life, but who became pregnant after treatment, looking to the removal of a small plug of mucus, which constantly blocked the cervical canal, had been conducted for a short time.

An instance recently came under my observation which very well illustrates the manner in which we are sometimes confused and surprised. A lady, married for four or five years, placed herself under my care some time ago. As a girl she had been healthy, but shortly after marriage she had been subjected to a sudden and pronounced jar, I believe by being thrown from a carriage, and after this she suffered much from dysmenorrhœa, and as her physician told her, from a prolapsed and inflamed ovary. What happened after this I have never been able accurately to discover, but some fluid accumulation in the pelvis had to be evacuated through the vagina and much after treatment was gone through with. From the time of the jar, before mentioned, until I saw her, she complained of constant throbbing pain in the left side, made worse by exercise, and at the time of the period other sufferings and discomforts were superadded. It was arranged that I should see her on a certain date, but in the meanwhile she decided to go to New York and consult a well-known specialist in that city. He was just on the eve of leaving for Europe and inserted an elastic ring pessary, recommended hot vaginal douches, tonic and aperient pills, etc., but did not satisfy her mind either as to the cause of her pain or of her sterility. During the succeeding summer she wore the pessary and followed out the line of treatment suggested by him, but in spite of these and of the fact that she lived actually upon one floor and never ascended or descended a stair, her condition remained the same. When I saw her for the first time in Oct., 1887, she still complained of the throbbing pain in her side, and backache, weight, bearing-down, etc., during the menstrual flow. But it was her sterility which chiefly exercised her mind, for not only were she and her husband both anxious for pregnancy to occur, but she had been told by her physician in the South, and this had produced a great impression upon her mind, that were she to have a child, all her suffering would be at an end.

The pessary had been removed about one month before I first saw her. Upon examination I found a uterus a little more than normally anteverted and sagging downward a little below its proper level, but otherwise absolutely no disease or abnormality of the genital system. I searched in vain for any perceptible alteration in the size, shape, position or sensitiveness of the tube or

ovary, or for the remains of a pelvic inflammation or an hematocele, and I confess I was completely non-plussed as to the cause of the existing barrenness. No important change was made in her daily life, habits, or treatment. On a subsequent occasion the same pessary that she had previously worn was re-inserted, and within a month impregnation occurred.

After a proper interval it became my duty to assist at the delivery of a vigorous girl. Since that time the patient has not suffered from an ache or pain, although so far as I can ascertain her local condition is identically the same as at my first examination.

But the story told by these cases is a very simple one; simple in itself and extraordinarily simple when we think of those instances in which some pronounced local or constitutional abnormality demands our attention. Sometimes merely a mechanical obstacle is to be removed, and under these circumstances treatment is usually easy, and the result occasionally brilliant.

I have in mind at this moment a good example of this class of cases. A lady with a sharp cervico-corporeal ante flexed and slight left latero-flexed uterus, consulted me about one year ago on account of sterility, (three years of married life had been fruitless) and the marked dysmenorrhœa from which she suffered. The cervical canal was so constricted as to prevent the passage of the finest probe.

Some time before I first saw her she visited another physician who, according to the patient's account, treated her for a considerable period with electricity. The plan pursued was evidently the introduction of the negative galvanic pole, in the shape of a sound, into the cervical canal, while the indifferent pole, a clay or cotton pad, was placed upon the abdomen.

This course of treatment was persisted in until the beginning of last summer, when the patient was told she was cured and the physician left the city.

When I saw her in August she showed no evidence of ever having had any dilatation of the cervical canal, and suffered just as much from dysmenorrhœa as she did during or before the time when electricity was used. While, at that time, I was confident that electricity properly applied would achieve the desired result, I knew very well that there was no use in discussing this plan of treatment with a patient in her then condition of mind. Therefore, believing that the flexure was the most important if not the sole cause of both dysmenorrhœa and sterlility, and being assured in my own mind that if this could be overcome through dilation and straightening of the canal, relief would be afforded, I resolved to accomplish these associated objects by the ordinary mechanical methods. During October, at weekly intervals, the canal was thrice dilated and straightened by means of Blade and Hegar's dilator's (no anesthetic being given and but little pain being experienced), and the period which came on about November first was accompanied by absolutely no pain or inconvenience, a circumstance especially noteworthy from the fact that it was the first period through which she had ever passed without great suffering.

On two subsequent occasions, a moderate size Hegar's dilator was gently introduced to see that no constriction of the canal had supervened. The patient suffered no return of the dysmenorrhœa, and improved in spirits and in general health. In June, after treatment had been suspended for many months, she became pregnant.

For my own part, from the observation of such cases of barrenness as I have encountered, I have learned especially two things. One of these is that every sterile woman should be examined with the utmost thoroughness; metaphorically speaking from top to toe. Every effort should be exhausted to find out the most minute particular in which she differs from the normal subject, and all of these factors should be put down as are the factors in a mathematical equation. The negative elements are then to be eliminated; next the doubtful, until finally one or more important features remain, and it is to these, and not to a large numer of preconceived and gener-

ally erroneous opinions, that we must address ourselves. Every case should be examined thoroughly and upon its own merits.

The next fact is the advisability, nay, the absolute necessity, of never expressing any decided opinion as to whether pregnancy will or will not occur. If you are too hopeless, you may be startled by hearing that your patient, after a suitable lapse of time, has called upon some professional rival to deliver her of twins. If you are too sanguine, you may be doomed to see your own expectations and the confidence of your patient in you, come tumbling down about your ears together.

1704 Rhode Island Avenue.

Society Reports.

MEDICAL AND SURGICAL SOCIETY OF BALTIMORE.

STATED MEETING HELD MAY 9TH, 1889.

The 694th regular meeting of the Society was called to order by the president, Dr. R. W. Mansfield.

Dr. J. E. Prichard related

A CASE OF COMPOUND COMMINUTED FRACTURE OF THE TIBIA AND FIBULA.

The patient, a man aet. 39, was employed in unloading coal, and fell 4 or 5 feet from the platform of a car. He was moved in a row-boat across the river, to his home, a distance of about two miles. Dr. Pritchard saw him about 12 P. M., and found a compound comminuted fracture of the tibia and fibula of the left leg. The bone was protuding through the wound. So difficult was it to reduce that the sharp angle of the protruding bone had to be sawn off. The bone (a specimen of which was exhibited), was very hard, almost like ivory. The leg was put up in a plaster splint and water dressings were used. One week after the splint had been applied, the plaster case broke, displacing the fracture and causing the bone to protude again. Again the reduction was so difficult that another piece of bone had to be sawn off. This time the leg was put up in a splint designed by Dr. Prichard to effect extension and counter-extension. No further accident occurred during the progress of the case, so far as the leg was concerned. There was a good recovery of the leg, which is slightly emaciated.

When the patient first went out on crutches, he drank rather freely, and in a little while developed a paralysis of both hands, which drop as in the paralysis of plumbism. Nux vomica and aconite were given, and the patient advised to lay aside the crutches and use a cane instead. There was a slight improvement. He was then ordered 1-40 gr. of Strychnia twice daily, and an embrocation, but there seemed to be little, if any, further improvement in the case.

Dr. Geo. H. Rohé said probably the paralysis was peripheral, and in time the integrity of the nerve may be restored. If this be the case, the paralysis will improve. If faradic contractility is lost, then the galvanic current may be of benefit. There is probably no active neuritis. He did not think the embrocation would do any good except as massage.

Dr. Chas. B. Ziegler related

A CASE OF PERTUSIS, PARALYSIS, CONVULSIONS AND DEATH.

April 1st, was called to see Annie S., aet. 5. She had always been delicate. In November she had scarlet fever, from which she recovered without sequelæ. Early in March she was taken with whooping-cough and was then (April 1st) in the fourth week of the disease. The paroxysms of cough were of ordinary severity. She occasionally vomited at the end of an attack. On March 24th she was frightened during a difficulty between her father and a drunken man, so much so that she ran screaming to the house of an acquaintance living a block away, where she was quieted. For a week previous she had complained of pain in the left ear, and tenderness over

the mastoid process. Aside from the above complaints, she appeared in good health, until noon of April 1, 1889. While at dinner, she asked for a piece of bread; her mother was about to pass it to her, when she noticed that the child had lost the use of the right arm and was speechless. Later, it was noticed that the right lower extremity was paralyzed, also. Dr. Ziegler saw her about five hours after the beginning of the attack. Besides the paralysis of the upper and lower extremities of the right side, he found a slight dropping of the cheek of the left side. Temp. 103° F., Pulse 110 and regular, Bowels open, Tongue slightly coated; she was in a semi-comatose condition.

April 2nd, 5 P. M. The patient was seized with convulsions thirty-one hours after the beginning of the paralysis. She had been in a semi-comatose condition with high fever all day, had had a few coughing spells. The convulsions began in the right hand and extended to the shoulder, then to the face and lower extremity. In the face the contractions were most vigorous on the left side. The eyes rolled upwards, but no strabismus. The surface of the body was cool, pulse comparatively slow, 90 to the minute. Pupils moderately dilated, but responsive to light.

12 P. M. patient had five convulsions since five o'clock, of the same character as those above described. Pupils would respond sluggishly to light. Temp. 102° F., pulse 110 and irregular; cries as if in pain on being moved.

April 3rd, patient much worse, convulsions continue at shorter intervals, with picking at the lips, which were dry; Tongue dry and coated; Pupils respond readily to light; Temp. 103° F., Pulse 120 and irregular. During the day she could be roused to a momentary recognition of the mother's voice.

April 4th, intervals of about five minutes between the convulsions; pupils contracted; Cheyne-Stokes respiration. 11 P. M., convulsions nearly continuous; they now began in the paralyzed hand, arm and lower extremity, becoming general. The face and upper extremity were most severely affected. The sides were convulsed rhythmically, pulse rapid and irregular, temperature very high. The patient growing weaker and weaker, and died early on the morning of April 5th.

Dr. Ziegler said he was not allowed a post mortem. He had not found the record of a case similar to this, the only one with even a slight resemblance to it being recorded in Henoch's Diseases of Children. In Henoch's case, the child, after a fit of coughing, was seized with convulsions, followed by unconsciousness for nine hours. Hemiplegia was discovered on the child's regaining consciousness. The patient, after several weeks, recovered. Henoch diagnosed left hemiplegia, caused by cerebral hemorrhage.

Several theories had been suggested to him as to the lesion or lesions that gave rise to the symptoms in the case under consideration. He had thought of embolic hemorrhage and meningitis, but by none of them could he explain the symptoms. His final conclusion was that the trouble began with an inflammation of the internal ear, resulting in a mastoiditis. The swelling of the brainward portion of the mastoid bone pressing upon the brain, gave rise to the hemiplegia. The irritation to the meninges resulting from these circumstances, lighted up a meningitis, which gave rise to the remaining symptoms.

Dr. M. B. Billingslea related

A CASE OF EXAGGERATED HYSTERIA, WITH DEATH OF PATIENT.

January 12, 1889, was called to see Miss L., aet. 51. Was told she had been paralyzed in the face about two hours previously, and was unable to talk. On examination, found the lower jaw fallen and patient unable to or wouldn't talk. There was no drawing aside of the face; pupils regular and normal, responding naturally to light; tongue would be protuded straight; Temp. normal; Pulse regular and normal; Respiration regular and normal; both eyelids acted naturally, and there was no evidence of any true paralysis or any other disease, the only symptom being the inability to talk.

A diagnosis of hysteria was made, and valerian ordered. The patient and her friends were assured that the paralysis was only temporary and would pass off after a few doses of the medicine had been taken. A specimen of urine was secured and examined; it was found normal, except that spec. grav. was 1024.

Next day the patient had recoved from her paralysis, but was very nervous and anxious, complaining of severe pains in the lower limbs, especially the left, which was peculiarly tender, the slightest pressure causing severe pain. This condition continued (with partial face paralysis, and also slight paralysis of the left leg, in the next two days), for about ten days, with pains flying here,there and everywhere over the entire body. The general condition remaining about the same as when first seen. In about two weeks, she seemed to be getting entirely well; but about this time the young folks in the house (a boarding house), were arranging for a dance, and the sister of the patient started on a pleasure trip, which action on their part the patient considered very improper while she was so seriously ill; consequently she was thrown into one of her nervous states, the worst one he had ever seen her have (in an experince of thirteen years as her physician), which continued until April 9th, about twelve weeks, when she died rather suddenly from exhaustion.

A general description of her condition during any one week of this period, would give the clinical history of the case. Pulse normal, except at times very compressible. Temp. normal, except an occasional rise of from 1-5 to 3-5 of a degree for a short time; no vomiting; bowels at times constipated, at others, loose, probably due to the diet, which was entirely liquid. It was impossible to induce her to chew anything after this second attack. At times she would not swallow anything except milk punch, which she *never* refused, but letting all other things run out of her mouth when poured in. Sometimes she would hold the medicine (or anything else given her in small quantity), in her mouth for half an hour or more, then spit it out. The kidneys acted irregularly, sometimes a very free discharge of urine, sometimes scant, a suppression at times for over twenty-hours, but according to analysis made several times during the course of the case, it was entirely free from albumen and tube casts. These analyses were corroborated by analyses made by Drs. Miltenberger, Neale and Chris. Johnston, Sr.

Lungs and heart were sound. At times she would remain for a day or more in a seeming unconscions or lethargic condition, except when aroused to administer nourishment or medicine, or on the occasion of the doctor's visits,which always had the effect of arousing her to a natural condition of mind, when she would answer all questions intelligently. At other times she would be just the opposite for a day or more; sleepless and restless, wanting to go to imaginary places, and compelling her nurses to take her in imaginary cars or carriages, or complaining of severe pains everywhere and anywhere, and having all kinds of illusions and imaginations. Then there would be times, for two or three days, when she would be free from either of these conditions. There was no further paralysis after the first two weeks.

The treatment included valerian, bromides, Assafœtida and tonics. Dr. Miltenberger saw her in consultation for about a week, in the fourth or fifth week of the attack, and confirmed the diagnosis, prognosis and treatment. He saw her again in the ninth week of the attack, under circumstances as stated below.

During the whole period of twelve weeks there was a constant disposition on the part of the patient to refuse to recognize anyone, except four persons, whom she always recognized readily.

There were two associated circumstances which were of interest. One was the occasion of Dr. Johnston's being called in by Dr. Billingslea, for self-defence against the assertions of a sister of the patient, who said she had positive proof that the patient had Bright's disease. On inquiring, it was learned that the sister had remained over night with the patient, and secured a bottle of

her urine, which she had had analyzed by a prominent chemist, who certified that the analysis showed ¼ per cent. of albumen and tube casts in great abundance. Dr. Miltenberger (who was the sister's family physician), was called in to be shown this analysis, and to confirm their opinion of Bright's disease. But after a thorough examination of the patient and an analysis of her urine by himself and Dr. Neale, he was only the more confirmed in his previous opinion. But, to be more thoroughly satisfied, Dr. Billingslea concluded to call in Dr. Johnston, and, after a thorough examination of the patient and an analysis of her urine, he confirmed the diagnosis of hysteria.

The other circumstance was the persistent preparation of the patient for death for four or five months before the date of her illness. Nearly every day she would refer to her death and arrange for it. She had given specific directions for her coffin, her grave and the funeral services; stating how much should be paid to each of the two ministers who were to officiate, how some of her friends should be placed in the funeral procession, where they were to stand at her grave, what disposition should be made of the floral offerings of certain of her friends, what kind of gloves should be worn, who was to be the consulting physician in case there should be a request for one by her family and many other things. During her sickness she would go over all these things with the person whom she had charged to carry out her wishes when she came to die.

While she was sick, a bill for her pew rent, which she always paid in advance, came in. When asked if it should be paid, she said, "No, I'll never use the pew again." All her life she was a peculiarly nervous person; also her mother before her. Dr. Billingslea said he had been her family physician for thirteen years and had treated her in many similar attacks; he supposed there was scarcely a day in which she did not have some of the hysterical manifestations; globus hystericus, clonus hystericus, hysterical cough, hysterical neuralgias, or hysterical emotions, but she never had any hysterical convulsions, tonic or clonic, and was free from any disease of the uterus or ovaries.

Dr. Frank C. Bressler said it is interesting, when we come to analyze hysteria, to find the many and varied forms it may take. There is no disease that it may not simulate. Hysteria developed late in life is worse than that in early life, especially if it be associated with the menopause, it will be peculiarly hard to treat. Obstinacy is one of the worst symptoms to manage in patients over 30 years of age. The disease is rarely fatal, though sometimes it is so from exhaustion, from refusal of food by the patient. He had a case of a young lady, aet. 22, who would eat one or two crackers per day with a little water, and this was all she could be induced to take for some weeks. If you cannot make some decided impression on the patients' mind, they may die of exhaustion. Some young ladies may simulate typhoid fever; they have a rise and fall of temperature, and if some decided impression be made on the mind, they control the heat centre, and the temperature becomes normal. You should always be on your guard and exclude hysteria before diagnosing any grave disease.

J. Wm. Funck, M. D., Sec'y,

1710 W. Fayette St.

An Old Anatomical Work.—It is reported that there has been discovered in the Royal Library of Berlin a "Latin Manual of Anatomy," in manuscript, which was written in the year 1304. Its author was Henri de Mondeville, surgeon to Philip the Handsome, of France, and teacher of Anatomy and Surgery at Montpellier and Paris. The value of the manuscript lies in the fact that hitherto we have hardly possessed any knowledge whatever of the state of anatomy at the period in queston.—*Med. Record.*

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BALTIMORE, SEPTEMBER 7, 1889.

Editorial.

"FOOD FOR WORMS."—There is no doubt that much of the horror with which men look forward to death is due to the popular belief that, after interment, the human body becomes the host of worms of various sorts which feed upon it and so help in its disorganization. In this connection, it is pleasant to read the statements of Dr. Green (Trans. Med. Soc., of Pa., 1888). This belief, he says, is not without interest to our Profession, whose knowledge of the laws of life should enable them to decide as to a question of this kind, and in the department of natural history it is surely worthy of our investigation. Sir Thomas Brown wrote long ago "While we suppose common worms in graves, it is not easy to find any there; few in church-yards above a foot deep; fewer or none in churches." Those who work even very little in the earth, know that neither worms nor any other creatures are found more than a few inches below the surface. This belief became prevalent from the observation of worms feeding on the bodies of animals when left unburied in the open air. Much is due to the poets, who have recorded their belief in their writings. A prominent divine was greatly interested in this subject, and during a long life sought to learn from sextons and superintendents of cemeteries the truth in regard to it. He never found the least evidence of the existence of worms in graves. An intelligent undertaker, who had charge of the disinterring and sending home of the bodies of many soldiers killed in our civil war, stated that he had never seen a living creature of any kind feeding on these remains, and that his experience in church-yard work had been the same. An article from a French journal quoted gives contrary testimony, four species of Diptera, one of Coleoptera and two of Thysaura having been observed, but there was probably something unusual in the manner of burial in this case, and testimony coming from Paris itself, at an earlier date, concerning the removal of bodies from a city cemetery, was directly contrary to these recent statements.

Miscellany.

CANCER AND AGE IN ANIMALS.—An instructive monograph on tumors in the lower animals, by Dr. Plicque, appeared recently in the *Revue de Chirurgie.* Amongst the more interesting definite facts included in his paper are the subject of melanosis and the relation of

cancer to age. Melanosis, so malignant in man, is far nearer the innocent type of tumour in animals, especially in the horse. A melanotic nodule on a spot subject to irritation by harness sometimes disappears when the harness is adjusted so as to rub the new growth no longer. This phenomenon has even been observed after the growth has begun to ulcerate. Other tumours, especially sarcoma and carcinoma, are often more intensely malignant in animals, especially the horse, than in man. Animals protected by the resources of civilization, so as to live to an old age rarely, if ever, met with in nature, are especially subject to cancer. Indeed, Dr. Plicque finds distinct evidence that age is far more predisposing to cancer in beasts than in man. Bonley, a French veterinary authority of experience, believes, on the ground of long observation, that dogs are doomed to cancer if they live to old age and are not killed by some acute pulmonary or gastro-intestinal affection. The cat, often cherished and kept alive when old and miserable, is also very subject to cancer in age. Statistics show that cancer is far more frequent in the carnivora than in vegetable eaters. This statement, as Dr. Plicque is careful to explain, is liable to mislead the pathologist; indeed, it is a capital example of a statistical doctrine eminently calculated to deceive the thoughtless. For, if we only note what animals are mentioned above in this paragraph, the truth will become apparent. Old cats and dogs, carnivorous animals, are kept alive through a somewhat misguided philanthropy, or rather zoophily. But an old horse is seldom favored in this doubtful way, and cattle are killed, or ought to be killed, when they are young and tender. The herbivora have little chance of living long enough to have cancer.—*Brit. Med. Jour.*

New York Academy of Medicine.—Excavations have already begun to be made for the new home of the Academy on the north side of West Forty-third street, near Fifth avenue, New York. The plot of ground, which is seventy-five feet by one hundred, cost $90,000. The estimated cost of the building, without fixtures, will be $130,000. The plans have not been adopted in all their details; but it will be a fire-proof, four-and-a-half-story structure, with an elevator. There will be audience-rooms, library, reading-rooms, room for photography, laboratory for the Pathological Society, kitchen and dining-hall. The subscriptions to the building fund have been liberal, and it is thought that, if the old property of the Academy can be sold at its value, the Fellows will enter upon their new home, when completed, with only a small indebtedness.

Amyloid Degeneration of the Pancreas.—At a recent meeting of the Kazan Medical Society, Dr. A. I. Podbelsky read an interesting paper on amyloid degeneration of the pancreas, in which he drew attention to the fact that the morbid lesion is by no means uncommon. Having lately made 122 consecutive necropsies (in 71 chronic and 51 acute affections), he found degeneration of the gland in 12 (9.83 per cent.). Among the cases were 6 men and 6 women, aged mostly from 40 to 50. Most frequently it accompanied tuberculosis (in 40 per cent of all cases of the disease), and somewhat less so syphilis. Waxy degeneration of other organs was found in 25 out of the 122 cases. Macroscopically the gland was always more or less anæmic. In cases where the amyloid degeneration was well advanced, or where it was complicated with cirrhosis, the consistency of the gland was distinctly increased, while in the presence of but relatively slight waxy changes, combined with intense fatty degeneration, the organ was rather soft. Its weight was invariably found to be augmented in comparison with the standard. The same held good in regard to the dimensions of the viscus, except in two cases complicated with cirrhosis and atrophy. Under the microscope, the degeneration was found to affect the walls of the arteries and periacinar capillaries, the membrana propria and fibres of the interlobular connective tissue. Fatty degeneration of the secretory cells and Renaut's *points folliculaires* was

always present. Dr. Podbelsky believes that the disease may be diagnosed, with probability during life, provided any new growths of the organ or obstruction of its duct can be excluded, from a chemical analysis of the patients' fæces with regard to fats and starchy matters. —*Brit. Med. Jour.*

Fund for Original Research.—Dr. C. S. Minot, of Harvard Medical College, is the Trustee-Secretary of the Elizabeth Thompson Fund for the promotion of scientific research. The Fund amounts to $25,000, and grants from its income are made in aid of scientific original work. Among those who have already been aided are Prof. Rosenthal, of Erlangen, for investigations on animal heat in health and disease; and Prof. Carl Ludwig, of Leipsic, who, with Dr. Paul Starke, is investigating muscular contraction, $500 and $300 being the sums allowed for these two subjects respectively. For the present, no grant exceeding five hundred dollars will be made. The majority of the grants hitherto given have been in aid of inquiries requiring laboratory work.

Mummification of the Umbilical Cord.—In the *Liverpool Medico-Chirurgical Journal* for July, 1889, there is an account of an interesting case of the above-mentioned condition by Mr. Frederick W. Lowndes, surgeon to the Liverpool police. At the end of 1885 the body of a fully developed, newly born male child was found in a cellar, with a scarf tied tightly round the neck. The lungs gave evidence that the child had respired. The point of chief importance, however, pertains to the state of the umbilical cord." "For about half an inch from the naval it was perfectly fresh; then came the usual line of demarcation; the remainder of the cord, about two inches and a half, was completely mummified, and there were no appearances of any ligature." We are quite in accord with the opinion of Mr. Lowndes that the state of the cord showed indisputably that the child had survived its birth for "at least twenty-four hours," since the change which had taken place was a vital one, and not the result of mere post-mortem desiccation. We are indebted to Mr. Lowndes for putting this practically unique case on record, if only for the fact that it shows that Casper's deductions from his observations on the value of mummifications of the umbilical cord as a means of determining live birth are too general.—*Lancet.*

Creolin Injections in Dysentery.—Dr. Sosovski has found large enemata of dilute creolin very useful in dysentery. He employed a one-half per cent. solution injected into the bowel twice or sometimes three or four times daily, the quantity used for each enema being generally about five pints. The patients did not experience any burning sensation or abdominal pain. The treatment was employed in sixteen cases, not one of which proved fatal, although a considerable number of patients succumbed to the disease during the same epidemic. In two cases the disease was arrested after the second enema, in nine cases the bloody stools ceased on the third day, in two cases on the fifth day, in one on the sixth, and in one on the ninth. The remaining case, though more obstinate, ultimately recovered completely. In addition to these, two children under a year old were treated successfully by means of creolin enemata. Again, another Russian physician, Dr. Kolokoloft, has used 1 per cent. solution in a number of cases of adults with complete success.—*Lancet.*

The Respiration Chair in Emphysema and Asthma.—In a graduation thesis Dr. Carl Grunert, of Halle, discusses and describes the treatment of emphysema and asthma by means of the respiration chair. The chair is so constructed as to effect by means of levers and bands attached to it pressure and traction on the thorax similar to that exerted by the muscles in forced respiration. A cuirass makes backward and downward pressure on the thorax, while a broad band compresses the abdomen and so increases the intra-abdominal pressure; the abdominal viscera then force the diaphragm upwards, and the

latter rises. The ultimate effect according to the author, is to make a forced expiration possible, to considerably decrease the volume of the thorax, and to empty more completely the hitherto badly aerated alevoli, so that at the next inspiration more oxygen enters; any bronchitic mucus which may be occluding the alveolus is also expelled. This is followed, of course, very soon by diminution of the dyspnœa. The disturbance of the circulation of the blood in consequence of emphysema is recognized by the abnormal loudness of the second pulmonary sound. This was found to decrease in three patients after a treatment of from three to six weeks in the respiration chair, while the first mitral sound increased, showing that the cardiac muscle had become stronger. Emphysematous patients treated in the chair lost more or less completely their chronic bronchial cattarrh; the attacks of coughing improved greatly, permitting sleep to be obtained without without disturbance; the asthmatic symptoms, too, were frequently cured. A number of cases treated by this method in the chair are described, and the results obtained tend to show that in many instances the respiration chair may prove an advantageous method of treatment. —*Lancet.*

The Infectivity of a Corpse.—The question as to how far a corpse can be considered infectious is one concerning which very considerable difference of opinion exists. We have ourselves recently been the medium of the expression of the two sides of the matter—much, we fear, to the unsettling of the views of those who ventured to ask for a definite answer to a questson that, in our prrsent state of knowledge, really admits of no such definite answer. In a northern town much controversy has recently arisen respecting the prohibition to admit into the cemetery chapel any corpse of a child dying of whooping-cough, lest the disease be transmitted therefrom to those entering the chapel. As regards this particular disease, the question of post-mortem infectivity might, perhaps, be decided by the bare fact that, as it is probable that the expired breath is the carrier of the "germ" or "virus," the risk of such contagion is reduced to a minimum when the act of respiration has ceased; and that only by assuming the retention of the infective agent in clothing, &c., could the corpse strictly be said to be infectious. Yet it is only a matter of opinion, and we are not aware of any facts to warrant the assertion that whooping-cough has never been so transmitted. We should, however, consider it as the *ne plus ultra* of sanitary caution to enforce such a prohibition as that named. Perhaps some of our readers could addnce instances of post-mortem infection in the case of whooping-cough or allied diseases. If so, weshall be glad to receive them, and they may then afford some basis for a line of action which must be thought to be somewhat arbitrary with present knowledge. It is otherwise with diseases where the virus is more likely to be given off from the surface of the body—as scarlet fever, measles, or small-pox; but even in these cases records are very few of infection being transmitted by a corpse.—*Lancet.*

Ulcerative Stomatitis.— According to Dr. Frühwald, ulcerative stomatitis begins on the external alveolar margin of the canines, appearing first as gingivitis catarrhalis. The gum becomes a pulpous mass, and salivation increases to an enormous extent, a very foul odor being produced. Gangrene of the soft parts and necrosis of the jaw-bones sometimes follow; glandular swellings are an ordinary symptom. Früwald mentions the following predisposing causes of the disease: insufficient cleanliness of the oral cavity, naturally flabby gums, rachitis, scrofulosis, possibly climatic influences, certainly general affections, especially infectious diseases and scurvy, poisoning by lead, copper, mercury and phosphorus. He recommends as treatment the application of iodoform or occasionally of nitrate of silver. He succeeded in cultivating from the discharge several kinds of micrococci and bacilli in gelatine and bouillon, and on potatoes, one of the

species having a fetid odor. They are, according to Früwald, undoubtedly pathogenic, producing fatal pleurisy and peritonitis in animals inoculated with them.—*Lancet.*

Does Smoking Protect Against Infection?—This subject has been closely investigated by Dr. S. Hajek, of Vienna. Tassinari, of Pisa, has already demonstrated by experiment that tobacco smoke destroys germs. Hajek found, by consulting statistics, that men who smoked were far less susceptible to the infection than the remainder of a population during an epidemic of diphtheria. Professor Oser has noted that in a certain outbreak of typhus three times as many women as men were attacked. It has already been pointed out that men, especially in cities, get more fresh air, as a rule, and follow healthier avocations than women. This fact must not be overlooked during the consideration of Dr. Hajek's theories. Again, very robust men, who resist infection, being "eupeptic," as Carlyle said of Field-Marshal Daun, can also tolerate a large amount of tobacco. It is true that Dr. Neudorfer has found that tobacco smoke contains pyridine, a destroyer of bacteria. If, however, persons not accustomed to smoke were to take to pipes, cigars or cigarettes, on the outbreak of an epidemic, they would probably make themselves very unwell and especially predisposed to fall victims to the prevailing pestilence. The mental condition of a man who has smoked tobacco too strong for him is a state of extreme depression, most unfavorable for his welfare during an epidemic. We advise non-smokers not to put their trust in pyridine during the prevalence of fevers, and to remember that their tobacco-loving friends owe their immunity to good health and strength, which enables them to stand tobacco, and, at the same time, to resist infection. —*Brit. Med. Jour.*

The Excretion by the Stomach of Morphine Injected Subcutaneously.—Dr. Conrad Alt resumes from his experiments as follows: 1. After hypodermic injections of morphine, the drug is excreted by the stomach. 2. This excretion begins perceptibly 2¼ minutes after injection, persists distinctly for half an hour, and gradually ceases within an hour. 3. Vomiting after hypodermic injection begins when morphine is already present in the stomach, and it is avoided by washing out the latter. 4. The quantity thus excreted is a considerable one, it may be estimated at half the amount injected. 5. Symptoms of poisoning are decidedly ameliorated by long-continued washing out, doses otherwise certainly fatal are by this means tolerated without injury. In one experiment, a dog weighing 5 kilo. received hypodermically 20 cg. (3 grains), of "morphium," and twenty minutes afterwards 600 cubic centimètres of a 4 per cent. HCl solution were passed into the stomach, from which 5.30 cubic centimètres of fluid were then withdrawn. Dr. Baumert, Privat-Docent in Chemistry, Halle University, examined this liquid, and reported on it as follows: "The liquid handed over to me contains a substance which can be isolated by the usual method for morphium, and which shows the true morphium reactions. Estimated by calorimetry, the quantity was at least 0.063 grammes (nearly one grain). These experiments, undertaken on Prof. Hitzig's instigation, confirm completely the conclusions of Marmè, Leineweber and others, and their practical application is self-evident.—*Brit. Med. Jour.*

Outbreak of Plague in Arabia.—It is reported this week that the plague has appeared in the Turkish dependencies on the south-western coast of Arabia, bordering on the Red Sea, and that vigorous sanitary measures are being taken to check the spread of the epidemic. In modern times this dread disease has more than once broken out in Arabia—e. g., in 1853, 1874 and 1879; whilst from 1878 to 1879 it invaded Astrachan, being, however, comparatively limited in its extent in the latter district. At the instance of the Royal College of Physicians, Drs. Colville and Payne were sent from this country to investigate that outbreak. Practically, it has not occurred in Europe (except in the Balkan Peninsula), since the first half of the eighteenth century..—*Lancet.*

Medical Items.

The death of a man in New York city from actinomycosis of the liver was recently reported.

Dr. J. T. B. McMaster, of Pocomoke City, Md., and of the class of 1850, University of Maryland, died last week.

Judge Bond sent the Health Department a very witty and clever reply to a notice from that body.

Dr. James W. Henry, of Cambridge, died last week in the 75th year of his age. He has not practised for many years.

About this season of the year reports of typhoid and other fever epidemics in different regions are prevalent.

Mr. Jonathan Hutchinson has just been elected President for the ensuing year of the Royal College of Surgeons of England.

Dr. Louis A. Sayre has recently been elected an honorary member of the St. Petersburg Medical Society.

Mr. Victor Horsley and Dr. David Ferrier were elected honorary members of the American Neurological Association at the fifteenth annual meeting, held at Long Branch on June 26th and 27th.

Dr. Wm. Warren Potter, of Buffalo, N. Y., has had conferred upon him the degree of Doctor of Medicine, *Honoris Causâ*, by the Kentucky School of Medicine.

Dr. Clara Bliss Hinds, daughter of the late Dr. D. A. Bliss, Gen Garfield's physician, is practising in Washington, and is an active member of the Woman's Anthropological Society of that city.

The College of Physicians and Surgeons at St. Louis have added to the Faculty Dr. Y. H. Bond, as Professor of Gynecology; Dr. Wm. Porter, Professor of Diseases of the Chest; and Dr. I. N. Love, Professor of Diseases of Children.

A Dictionary of Medical Specialists is the title of a book that has lately appeared in London, which purports to give a complete list of all practitioners in London who devote themselves to any specialty. The work is edited by a lawyer.

The falling off in the habit of cigarette smoking, at least in the street and other public places, is becoming very noticeable, and dealers also say that there has been of late a very great decrease in the sale of cigarettes.

Dr. T. W. Battle, an old and highly respected physician of Columbus, Ga., died at his residence Sunday, June 16, after an illness of considerable duration. The deceased was 73 years of age and leaves a wife and eight children.

Dr. Julian J. Chisolm is President of the Electro-Automatic Transit Company, an organization for the construction and maintenance of an electrical roadway for the conveyance of mails and parcels for long distances at a very high rate of speed.

A case is given by the *Medical Press* of a man whose history is remarkable for the number of times he has obtained admission to lunatic hospitals by feigning lunacy. In the course of seven years he obtained admission to no less than twelve asylums.

The American Public Health Association will hold its seventeenth annual meeting in Brooklyn, on October 22 to 25, 1889. The programme is a very extensive one, and includes discussions on yellow fever, diphtheria, tuberculosis, compulsory vaccination, prison, railway and steamship sanitation, methods of scientific cooking, etc.

The water shed of the water supply of New York city is said to contain eighteen thousand five hundred cows, pigs, horses and sheep, to say nothing of human beings. The excreta from all these animals, in one form or another, is consumed by the users of the croton water.

A species of fraud which it would be difficult for any "confidence man" to imitate in this country has lately been made the subject of judicial investigation in England, where a doctor has been making a practice of buying medical practices, holding them a little time and then selling out at a large premium on the strength of false representations as to their value. He bought one for £250 and sold it in thirteen months for £650. Another was purchased for £297 and one-half of it was sold to a partner for £500.

Original Articles

THE TREATMENT OF SUCH EAR DISEASES AS ARE USUALLY SEEN BY THE GENERAL PRACTITIONER.

BY HIRAM WOODS, M. D.,
BALTIMORE, MD.

Assistant Surgeon at the Presbyterian Eye, Ear and Throat Hospital, and Prof. of Diseases of the Eye and Ear at the Woman's Medical College, Baltimore.

THE EXTERNAL EAR. ANATOMY, TUMORS, ECZEMA. PAPER II.

Anatomy:—The External Ear consists of the Auricle and Auditory Canal. Its inner boundary is the Tympanic membrane. The canal is usually about one inch and a quarter in length. It is lined with skin, continuous with that of the rest of the body. The "wax glands" are found in the skin of the canal, and are most abundant in the outer or cartilaginous portion. "The ceruminous glands are like the sudoriparous or sweat glands in their development and secretion. The only difference between the secretion of the two kinds of glands is that the ceruminous glands contain some coloring matter."—Roosa. The function of the wax secreted by these glands seems to be purely *protective*, viz.: to catch little insects, particles of dust, or other foreign substances entering the canal. When first secreted the wax is fluid, but soon becomes firm. Buck states that "it is now a well established fact that at least the uppermost layer of the epithelium lining of the external auditory canal moves constantly from within outward," —a motion analagous to that of the cilia in the laryngeal mucous membrane,—the result of which is to gradually expel from the canal the hardened particles of wax with whatever may have adhered to them. The "secretion of wax" does not add to the acuteness of hearing, although it is a more or less common belief that it does so. This misapprehension is probably founded on the fact that occasionally in the course of the chronic adhesive processes in the middle ear there is a marked decrease in the ceruminous secretions. At the same time, the hearing deteriorates. Politzer states that now and then the secretion of wax disappears in recent middle ear catarrh, and returns when the catarrh has been cured. The decrease in the ceruminous secretion under these circumstances Politzer attributes to "an affection of the trophic nerve of the ear accompanying the disease of the tympanum." I have often had patients suffering from chronic and incurable deafness attach great importance to the appearance of little wax particles, when no improvement could be noted in the hearing. The wax has nothing to do with the hearing except to sometimes interfere with it by forming a mechanical obstruction.

Diseases of the Auricle:—Following the order observed in Prof. Roosa's text-book—as indicated in the former paper—the first trouble which properly belongs to the subject is the Tumors of the Auricle.

(*a.*) *Fibro-Cartilaginous Tumors*, or Keloids, seem to be more common in this locality and farther South than in our Northern States, where, judging from the text-books written by specialists, they appear to be very rare. At the Presbyterian Eye and Ear Hospital 4 cases were operated upon during 1888, and 30 during the previous ten years of the hospital's existence.

They are usually found on the lobule of the auricle. I have seen one on the upper curve of the helix. In structure, they are simply hypertrophied connective tissue. They can usually be traced directly to some injury which has been either allowed or forced to heal by granulation. Piercing of the ears is the most common cause, and this accounts for the lobule being the part generally involved. They are almost always seen in young colored women. The patient with the tumor on the helix of the ear was a young colored man, and the cause was a burn. I have removed one keloid from the ear of a white patient—a young lady. It followed piercing.

The keloids are usually "dumb-bell"

in shape, a mass being on either side of the lobule the two being joined by a band of connective tissue running through the lobule. They show a marked tendency to return after removal, which tendency is supposed to grow less as the individual gets older. They return, because any operation is apt to be followed by the formation of granulations, and this is the condition which originally produced them.

Treatment.—There are, of course, many ways of getting rid of these tumors, but in my opinion, the best plan is to cut well around them in such a way as to enable the operator to bring the lips of the wound tightly together by sutures, so as to leave, if possible, no part whatever to granulate. I am indebted for this suggestion to Prof. Chisolm. I have operated in this way upon a number of colored girls at the hospital, and with much better success than when I was not so particular in closing the wound. It is difficult to keep track of hospital patients, but I know of at least 5 patients under 25 years of age who had no return in a year after operation. One of these was operated upon in 1886, and there is still no return. In another case—the first I treated in the way suggested—there was no return in the ear so treated, some months after the operation, while the tumor had come back in the other lobule, in which a surface had been left to granulate. All the patients were told to come to the hospital from time to time, and to come at once if there was any return of the tumor. In two cases there was a return. There was a large keloid on each ear of a girl of 16, and so much tissue had to be removed that it was difficult to bring the edges of the wound closely together. The stitches cut out on both sides. I believe that the nearer we can come to securing union by first intention, the less the probability of return of the tumor.

(*b.*) *Sebaceous Tumors.* Little need be said about these tumors, which are occasionally seen on the auricle. If they are small they can be evacuated by puncture and the curette. It is well, I think, to touch the inside of the sac with pure carbolic acid. Large ones I have often seen treated in this way, with the additional introduction of a seaton. The resulting suppuration eventually destroyed the sac. If the tumor is large, however, enucleation is the best and most usual way of getting rid of it.

(*c.*) The only other form of tumor which has a place here is Epithelioma. The treatment, of course, is in no way different from that pursued when this growth appears elsewhere. It is of rare occurrence on the auricle, but a small ulcer —especially in old persons—should be carefully watched. I have seen two cases in which the deeper parts of the ear were involved, one, I know, having since ended fatally. In a third case, a little sore, of pinhead size, on the helix, supposed by the patient, a man of 73, to be a spot of eczema,—spread rapidly, while it was under observation for a month or more. It was then excised with scissors, the wound speedily healing.

Syphilis. The auricle is subject to the secondary and tertiary skin manifestations of syphilis. Nothing special need be said about their treatment.

Eczema of the Auricle. This is one of the most common of the diseases of the auricle. The causes leading to it here are substantially the same as those producing it in other parts of the body. Bad hygiene and improper nourishment are its usual accompaniments. A discharge from the ear, due to suppurative otitis media will produce and keep up an eczema indefinitely in that part of the auricle over which the discharge passes. The varieties of the disease most commonly seen are the vesicular, pustular and squamous or scaly eczema, the two former being most common in badly nourished children and accompanied sometimes by an otorrhœa. Itching and burning of the auricle are the symptoms usually complained of.

Treatment: If there is any local cause—an otorrhœa for instance—it must be removed before we can hope to get rid of the eczema. When there is no such cause, regulation of the diet and the internal administration of tonics are usually essential. Local treatment

must be regulated according to the nature of the eruption. Stimulating ointments will often aggravate the disease. The discharge from the vesicles or pustules forms crusts and scabs over the auricle, and these must be removed before any local application is made. Washing with soap and warm water is usually efficacious. The addition of bicarbonate of soda, I think, makes the task of cleaning easier. After being carefully dried, the inflamed surface should be covered with a non-irritating ointment orpowder–preferably the former As a matter of routine practice the yellow oxide of mercury ointment (gr. ii. to vaseline 3 i.) has been in use for some time at the hospital. The oxide of zinc ointment, with the addition of a drop of carbolic acid to the drachm seems to me preferable. Powders of boracic acid or oxide of zinc I have often used with good results. The main object are to avoid irritating the part. to keep it protected from the air, and thus allow it to heal. When the vesicles or pustules have become little ulcers Prof. Buck recommends that they be lightly brushed with nitrate of silver fused on a probe. I cannot say whether or not the disease is shortened by this method of treatment. The scaly form of eczema is much more chronic in its course, annoying to the patient, and difficult to cure than either of the preceding. It is more frequently found in the canal than on the auricle. It often produces intense itching in the canal, and the scratching with toothpicks and other instruments, to which the patient resorts, only makes matters worse. The hearing is apt to be impaired, owing to the accumulation in the canal of the products of the inflammation The skin of the canal usually becomes. thickened and scaly. These flakes of hardened epidermis are themselves an irritant and serve to keep up the disease.

Treatment : The first thing to do is to clean the canal thoroughly. This can best be done by the syringe. The angular ear forceps are very useful, provided one knows how to use them: but it is very easy to do a good-deal of harm in an ear with a pair of forceps. Syringing sometimes makes very little impression on the plug in the canal. If the patient use a solution of bicarbonate of soda (15 to 30 grs. to ʒ i.) in the ear for two or three days, the syringe will then be all that is required. Dr. Herbert Harlan, of this city, has told me that he has found the solution of peroxide of hydrogen effective in softening the mass. The use of oils I consider thoroughly wrong. None of them do any good which cannot be more easily obtained with other remedies, and many of them do much harm. The objections made to them in our standard text-books are not in the least overdrawn. Still, haarlem oil, almond oil, and glycerine are employed so frequently that I think calling attention to their abuse is justifiable. After cleaning the ear some stimulating application should be made to the skin of the canal· From Prof. Duhring's "Diseases of the Skin" I obtained some time ago the suggestion of an ointment of the Oil of Cade grs. ii-v. to vaseline 3 i. I have used this steadily since and have gotten excellent results with it. I find that the same treatment is given the first place in the last edition of Buck. Prof. Roosa prefers liquid applications because they do not impair the hearing as much as do salves. He thinks highly of a solution of nitrate of silver in the strength of 20 to 40 grs. to the oz. This solution should be applied to the walls of the canal, with an applicator not instilled into the ear.

CHOROIDITIS DISSEMINATA SYPHILITICA, WITH SECONDARY ATROPHY OF THE RETINA AND OPTIC NERVE.

BY JAMES J. MILLS, M. D.,
OF BALTIMORE.

Mr. W. presented himself at the office for the examination of his eyes, complaining that for the past two years his vision had been rapidly failing. He

presented a pale, cadaverous appearance. He was about 6 feet in height and 31 years of age.

Upon inquiry he said that both his parents were living and in good health, and that until five years previously he had enjoyed the best of health. At this period he contracted syphilis.

Upon examination the cervical and inquinal glands were not found enlarged, but had been previously. The liver was very much increased in size; in fact, the examination showed him to be thoroughly syphilitic. He said that one year ago he had been under the treatment of an oculist in St. Louis, but in spite of this his vision rapidly deteriorated, until July 29th when he came to me for treatment. Fingers could only be counted at four feet distance by the left eye and ten feet by the right.

His eyes presented externally a normal appearance, with the exception of a slight dilatation of the pupils.

The cornea, aqueous, lens and capsule were perfectly transparent, the vitreous presenting a slightly cloudy appearance.

Upon the examination, however, of the fundus with the aphthalmoscope, a well marked choroiditis disseminata syphilitica was revealed, and there was also a secondary atrophy of the retina and optic nerve.

The periphery of the fundus was studded with white spots due to exudations into the choroid and retina, others where the exudations had been absorbed, and atropy of the choroid and retina had resulted, the sclerotic showing itself. The latter may be distinguished by their glistening appearance and dense pigmentary border, whether the atrophy has taken place gradually or suddenly, whether it be the result of stretching or a previous exudation, or hemorrhagic extravasation.

The atrophic condition of the discs was easily recognized by their shape and color; the retinal vessels were greatly attenuated and diminished in calibre.

We cannot with certainty diagnose the syphilitic character of the disease with the ophthalmoscope, as we find that sometimes the most varied forms of this affection are due to syphilis.

I think, however, that when the masses of exudation are small, circumscribed, isolated, and show no tendency to coalesce even when they are grouped together, that we shall not be mistaken in considering its origin syphilitic.

The periphery of the choroid was the part in which the exudations were primarily situated in the present case, with an extension toward the macula, there being some extensive lesions in that region.

In some cases they commence at the macula and spread in a peripheral direction.

When the pigment of the epithelial layer of the choroid becomes infiltrated into the retina, the rods and cones are especially liable to suffer, but the changes may even extend to the inner layers of the retina.

I prescribed 1-10 gr. hydrarg iod. rub. and 8 grains of pot. iodid, to be taken in solution twice daily, besides which an inunction of ungt. hydrarg (50 per cent.) was ordered morning and evening.

On August 5th, one week after the commencement of treatment, fingers could be counted at thirteen feet by the right and nine by left eye, this being a gain of three feet for the right and five for the left eye.

August 11th, one week following the last visit, fingers could be counted at eighteen feet distance by the right, fourteen by the left eye, being a gain of five feet for each eye since the last visit.

We should be careful how we make our prognosis, especially if the region of the macula is involved.

The little spots surrounded by a red border, so characteristic of syphilis afford the best prognosis.

In the present case where atrophy of the retina and optic nerve have resulted from disseminated choroiditis the prognosis is necessarily unfavorable, so far as great and permanent improvement is concerned.

I mention this case thinking that it may be of some interest from the rapid gain of vision under the sorbefacient treatment, and especially considering the appearance of the fundus oculi.

II. THE PRESENT ASPECT OF THE QUESTION AS TO THE ETIOLOGY OF PNEUMONIA.

BY WILLIAM BUCKINGHAM CANFIELD, A. M., M. D.,

Chief of Chest Clinic, University of Maryland.

[Being a part of the Report on Practice of Medicine, read before the Medical and Chirurgical State Faculty of Maryland. April, 1889.]

The pathology of the disease ordinarily called pneumonia is by no means clear. Ever since investigators have begun to classify diseases from a different point of view, and to find out the exciting cause or organism which causes that particular disease, the subject of pneumonia has been the object of much study and speculation. From a clinical aspect, observers had noticed that pneumonia occasionally occurred in epidemics; that "catching cold" did not always seem to account for its outbreak, as was evidenced principally in the immunity of sailors who lead exposed lives.

The literature of this subject is so extensive, and has increased so much in the last few years, that I shall only consider it hurriedly. Klebs,* Eberth,† Koch,‡ Salvioli,§ Zäslein,‖ Talamon¶ and others had found and described organisms in the lungs, pleura and kidneys of man; but Friedländer** was the first to describe what he supposed was the specific organism. It was a short bacillus surrounded by a zone or capsule. He cultivated it and was able to produce pneumonia in mice; but not in rabbits. His pneumonococcus, as he called it, was for several years looked upon as the specific organism of pneumonia. Fränkel,††, Weichselbaum,‡‡ Gamaléia§§ and Sternberg,‖ in this country, have done this most important work up to the present time.

It seems that in September, 1880, Sternberg,¶ while engaged in certain investigations in New Orleans, injected a little of his own saliva beneath the skin of a rabbit as a control experiment. To his surprise, the animal died, and in the blood was found a number of oval micro-organisms in pairs chains. In 1881, Pasteur,* in examining the saliva of a hydrophobic patient, injected some of it into a rabbit, and obtained similar organisms. Later Fränkel† followed out this same line, and concluded this organism, which he called a diplococcus, was the specific organism of pneumonia, although he found occasionally other organisms present, and among them at times Friedländer's. Weichselbaum‡ reviewed the whole work, and repeated the experiments with no exact and definite results. He could not confirm any one specific organism; but thought the diplococcus of Fränkel was most frequently present in pneumonia, although he could not help thinking that several organisms might enter into the causation of pneumonia. Gamaléia§ described the organism studied by him as the streptococcus lanceolatus Pasteuri. He concludes that it is always found in fibrinous pneumonia in man, and that it can be demonstrated experimentally; it produced in animals partially refractory to the virus, as the dog and sheep, a fibrinous inflammation of the lungs; but its pathogenic influence is held in check in those who are healthy by the action of the pulmonary phagocytes.

J. Lipari‖ reproduced pneumonia in animals by intracheal inoculation of pneumonic sputa or of cultures of an organism having all the characteristics of Fränkel's diplococcus. In all cases he found the same organism in great abundance in the hemorrhagic and serofibrinous pleural exudations, and in the hepatized pulmonary parenchyma, less abundant in the blood and spleen, inconstant in the liver, kidneys and

*Mitheilungen aus dem kais. Gesundheitsamt, Bd. I., 1881.

†Arch. per le Scienze Med., Vol. VIII, 1884.

‡Archiv. f. Exp. Path., Bd., IV. 1877.

§Deutsches Archiv f. klin. Med. Bd. XXVIII, 1881.

‖Centralblat f. d. med. wissenchaften, 1883.

¶Progrès Medical, 1883.

**Fortschritte der Medicin, 1883. S. 715.

††Centralblatt f. Bacteriologie u. Parasitenkunde, Bd. I, S. 78, 79. Bd. III, 1887. Zeitschr. f. klin. Med., Bd. X, S. 401. Deutsche Med. Wochenschr. No. 13, 1886. Zeitschr. f. klin. Med. Bd. XI, H. 5, 6.

‡‡Centralblatt f. Bacteriologie u Parasitenkunde, Bd. I, S. 297, 553, 587.

§§Annales de l'institut Pasteur, t. II, No. 8, Aug. 25, ‖London Lancet, March 2, 1889, and N. Y. Med. Record, March 16, 1889.

¶Journal of the Royal Microscopical Society, June, 1886, p. 396.

*Comptes rendus. t. 92. p. 159.

†loc cit. ‡loc cit. §loc cit. ‖Il Morgagni, Oct., Nov., Dec., 1888.

pericardial and peritoneal fluids. In some cases of pericarditis, peritonitis and abscess of the liver, the diplococci were very abundant. Inoculations of sputa or of pure cultures in the veins, in the peritoneum, or under the skin, never caused pneumonia; pneumonia occurred only when the inoculations were made through the lungs. The disease was first local, and then became general. The most recent review of this subject has been made by Sternberg.*

Most writers agree as to the identity of the micrococcus Pasteuri (Sternberg), streptococcus lanceolatus Pasteuri, (Gamaléia), and the diplococcus or bacillus of Fränkel. If, then, this organism is found in the buccal secretion of healthy individuals, how do so many escape attacks of pneumonia? In the light of recent studies made by Metschinikoff,† Baumgarten,‡ Osler§ and others, it is more than probable that the phagocytes in a healthy individual, having healthy movements, are able to seize and assimilate the invading organisms, and it is only when an individual not well when the phagocytes lose the power to battle against the specific organism of pneumonia from prolonged exposure to cold, that pneumonia sets in. The question of repeated attacks, or of immunity from second attacks, I have not time to take up now. Personally I have had a very limited experience in the experimental study of pneumonia. At the Johns Hopkins Pathological Laboratory, I have isolated Fränkel's diplococcus from the blood and tissues of rabbits killed with Dr. Sternberg's sputa; I have also obtained the same organism from rabbits killed with prune-juice expectoration. This work, having been just begun, is of little value to report; but I hope in further work during the year to investigate the subject more extensively.

1010 North Charles Street.

*loc cit.
†Virchow's Archive, Vol. XCVI and XCVII.
‡Zeitschrift f. Kl. Medicin, Bd. XV, I and 2.
§N. Y. Med. Record, April 13, 1889.

ADDRESS BEFORE THE GRADUATING CLASS OF THE UNIVERSITY OF MARYLAND, DELIVERED APRIL 8th, 1889.

BY WILLIAM KIRKUS, M. A., LL. B.

Mr. Provost, Ladies and Gentlemen:

I have been requested by the Faculty of Physic of Maryland to address a few words this morning to those fortunate young men who have satisfactorily passed their examinations and received their degrees and who will set out to-morrow morning on that career which will involve not only the comfort and happiness, but the very life of an indefinite number of their fellow-citizens. It is very certain that in doing me this honor the Faculty of Physic were very well aware that I could have no advice worth offering on matters which belong exclusively to the medical profession. I have no suggestions to make which would not be ridiculous, about the treatment of typhoid fever or the removal of deeply-seated tumors. On the other hand every sensible person is profoundly interested in the science and the art of medicine and surgery, so far at least as such art or science can be said with any real accuracy to exist. People are unaccountably reckless about their souls; they are not always sufficiently careful about the perfection of a title to real estate; but "skin for skin, yea all that a a man hath will he give for his life." There was an unfortunate woman about whom we read in the Gospel who "had suffered many things of many physicians and had spent all that she had, and was nothing bettered, but rather grew worse." This, we may hope, was even in those remote days, a highly exceptional case; and if anything of the kind could happen now what would be the use of reading the advertisements of quacks and cures in almost every daily newspaper? Still we all resemble this unhappy and victimized woman in our readiness, if not to pay our doctors' bills, at least to "run them up." And we are more and more desirous to understand as much as

ordinary people can be made to understand of the principles upon which we are being treated. If we are ill at all we very likely should prefer to be remarkably ill. We want *our* Bright's disease, if we must have it, to glow with a hitherto unknown brilliance. If we must suffer any surgical operation, we should prefer to have as much incision and excision as is compatible with our being able to enjoy the renown of having been the most cut up human being that ever survived, with scarcely the disfigurement of a scar. Still a man naturally wants to know, to begin with, whether he need be cut up at all. Why not be able to boast of the narrowest possible *escape;* how, for instance, your cancer was cured by smelling Pond's Extract, and a shattered and compoundly fractured limb saved by a porous plaster? There was a man, a clergyman, a good many years ago, whose delightful name was Blood. He was on board a steamer sailing between Queenstown and Liverpool when the vessel was burned and he was almost the only passenger who was not roasted or drowned. This narrow escape was to him a source of considerable income; but he met his match when he sought and obtained an interview with Archbishop Whately. The archbishop listened to his pathetic and exciting story with eager interest; but instead of contributing to the vicarious thank-offerings which Mr. Blood had been in the habit of receiving, his grace informed him that he was a rival, for he had himself experienced a far more wonderful deliverance—he had crossed the Channel over and over again and never been shipwrecked at all. But evidently the archbishop was remarkably unromatic.

And I am free to confess, for my own part, that when I find a man or a woman ready to submit to the carving-knife of a surgeon with the easy indifference of an earthworm or a centipede, I regard that person with more contempt than admiration. I have a conceited and egotistic regard for my own limbs. My interest in medical and surgical skill is disgustingly selfish and cowardly. I prefer prevention to cure, and a safe voyage to the most romantic escape from shipwreck and sharks. Still a profound interest in medicine and surgery I undoubtedly have. As our excellent and versatile friend, Mr. Brooke, of Tipton, in George Eliot's *Middlemarch* might say: "I went into that sort of thing a great deal myself at one time; but I saw it would not do. It leads to everything: you can let nothing alone. Now a little of it is all very well if you know when to stop. A few lectures at a medical school; and seeing operations you know; a foot or a toe; and a dissection if your stomach is sound; and dogs, now, dogs—just to cut them up and put the heart and lungs into a large bottle of gin, you know—gin—and make your observations. Or a skeleton—not many—but one, you know, in a cupboard like a sentry-box, and you might observe the relation of the bones by trying to make him smoke a pipe; but you must know when to stop or that sort of thing runs away with you." Unfortunately I have not gone quite so far as good Mr. Brooke, for I have no "documents."

But *Middlemarch* is full of shrewd suggestions for medical aspirants. The road to success for them, as for all others, is steep and rough; and a noble ambition and a high ideal, and unusual skill, and a scientific imagination, and quick inventiveness, and freedom from prejudice, and superiority to mere routine—all qualities of the very highest value—may often, at first, impede their progress. Even half a century or more of reform, even the fresh air of this side of the Atlantic have scarcely changed the proportion between wise men and fools which was observable in the *Middlemarch* of George Eliot. Still we can find among our medical practitioners a Wrench and a Toller, a Minchin and a Sprague. Still the unfathomable stupidity of a patient is more than a match for the combined medical skill of a whole town. Still some good Mr. Powderell, "anxious that no means should be lacking," will induce his wife secretly to combine with the physician's medicine "Widgen's Purifying Pills, which arrest every disease at the fountain by purifying the blood."

Still it may happen—as in the case of Mrs. Larcher's char-woman—that a shrewd diagnosis and an easy cure may be misinterpreted into nonsense, or may exasperate the envy of a professional rival. You will remember the story of Mrs. Larcher, the char-woman, and her tumor and Dr. Lydgate. [*Middlemarch*, ii, 27-28.]

You will, of course, remember that "Lydgate's method as to drugs" was simply to do what probably every physician in Baltimore does—charge simply for his services as a physician, write the necessary prescription, and leave the patient to get it made up wherever he may chose. But in the England of the time of *Middlemarch* this was an unheard of innovation. The "surgery"—what we here call the "office"—of an ordinary practitioner, was like a little drug store. The doctor's remuneration for his properly professional services was disguised under a charge for medicines, and therefore his medical skill was apparently in direct proportion to the quantity of drugs he administered. Moreover as he gave no prescription, but simply sent to his patient and charged in his account "mixture" or "mixture as before," or "pills to be taken six before each meal," as the case might be, he could charge as much for dough dusted over with powdered liquorice as he might fairly have charged for the most costly preparations. He could make "mixtures" of any price by adding to eight ounces of "aqua pura" whatever color or smell he thought would be most delusive or least unpalatable. It would be strange, indeed, if the medical profession had made no progress in three-quarters of a century, when even the clergy—the most conservative of mankind—have discovered that the world moves. But even the doctors of that now very remote period had some feeling of their business. They must have known as well as we do that it was not very dignified to be paid by the gallon of "mixtures," or the square acre of blisters. Nearly all these venerable absurdities can be explained, if not justified, by circumstances over which the parties most concerned had no control.

But it is obvious that paymet by the number of bottles and boluses was not, of itself, conducive to the progress of medical science, and the more so because the patients, especially patients of the confiding and patiently suffering sex, were as proud of their pill-boxes and medicine-bottles as the apothecary himself could have been. Again I quote from George Eliot, on so many subjects a truly delightful "guide, philosopher and friend," in her reference to Mrs. Pullet, with her pills, drops and bottles —[*Mill on the Floss*, 85-86.]

Times have changed somewhat, but not human gullibility; and the worst temptation that can happen to any man besets the physician every day of his life, viz.—not that he wants to cheat but that thousands of people want to be cheated by him. To very many people who have plenty of money a slight, manageable illness, with a haze of obscurity and requiring costly and variable treatment, is one of the most fascinating of luxuries. There are many diseases, or at least discomforts and ailments, which require no treatment but a good scolding or—so far does the brutality of truth sometimes proceed—a refreshing pailful of cold water. When coaxing and petting, and even a little sulking, have failed to perssuade a husband to allow a trip to Europe or the mountains or the ocean, a good-natured doctor—good-natured to the lady—might often get the matter settled in ten minutes. To be sure he would have to "doctor" his diagnosis as well as the patient. On the other hand he would not only receive his fees, but he would have charge of a disease which might, withouot any physical injury to anybody, be kept going in various forms, as long as conscience or prudence would allow. And there are many cases, far more serious, where a physician has to decide questions of real moral difficulty—true cases of conscience and of the utmost possible complexity—when his own pecuniary interest and even his professional reputation may seem decisively on the side of what he believes to be wrong. Indeed nothing

is more honrable to human nature itself than the notorious fact that in the immense majority of cases, physicians are far above even the suspicion of dishonor. They take the greatest possible care to prevent the very diseases by which they get their living. The value of their gratuitous services would make a comfortable income. They minimize to the utmost the cost of an illness, and go very far beyond the bare letter of their implied contracts. If they are entrusted with very difficult cases and by persons of great wealth, their charges may to the uninitiated seem sometimes excessive; but it may be justly replied that the uninitiated are not competent judges of a physician's fees, and that the rich are not required to pay too much but the poor are allowed to pay far too little.

The operations of trade, wholesale and retail, in a country like this, and throughout this modern society, are so entirely necessary and may be so entirely honorable, that to disparage trade and tradesmen is merely snobbish. Blacking boots or collecting garbage is immeasurably more honorable than dandified idleness and empty-headed foppery. Still there is a well recognized difference between a trade and a profession. The difference may be expressed, I think, with sufficient accuracy by two mottos: The motto of a trade is *caveat emptor:* the motto of a profession is *caveat venditor.* In the first the buyer must be on his guard, in the second the seller. A tradesman very likely advertises his goods in the daily newspapers; perhaps he puts a ticket on the goods themselves, indicating their price. He sells, it may be, silk or linen or cotton goods at very different prices; and never pretends that they are all eqally good or strong or durable. It is no part of his duty to tell his customers how much they can afford to pay for what they need. If they can only afford five dollars he can afford to sell them something honestly worth five dollars. If they choose to spend fifty dollars he will give them value for their money. They are at liberty to examine any article before they pay for it; and anybody who has watched the mysterious operation of "shopping" may bepardoned for suspecting that ladies do really examine about twenty-five times as many things as they have the least intention of purchasing. If a servant girl wants to buy some showy but flimsy materialthat will wear out in a month, she has a right to spend her money in that silly way, and the tradesman has a perfect right to sell what silly girls prefer to buy. So long as his transactions are free from fraud he has discharged, *as a tradesman*, his utmost duty. If he tries to persuade a servant girl that, for a person in her position, showy and flimsy dresses are not worth buying at any price, he passes, for the moment, out of the position of a mere tradesman and assumes the higher dignity of guide, philosopher and friend. Now this position of guide, philosopher and friend, which for the tradesman is optional and occasional is, for the member of a profession, habitual and necessary.

A physician, for instance, may refuse to undertake a case at all; but if he does undertake it, he will conduct it according to his own best judgment and without the slightest regard to the wishes of the patient when they conflict with that best judgment. He will not prescribe a great quanity of drugs, simply because the "money" they would cost is "no object." He will not devote to the treatment of disease anything less than the very utmost of his skill, whether his fees be great or small. *He* must watch for the interest of *his patient*, because in the great majority of cases the patient is quite incapable of looking after them himself. And if his patient were to die and he were to plead as an excuse that though he knew that his treatment was absurd, yet he had done what he was asked to do and was paid for doing, an apology so preposterous would be the cureless ruin of his professional reputation.

Obviously, then, it is the highest interest of each medical practitioner that his own patients should be at least sufficiently intelligent to trust the intelligence of people who are wiser than themselves. It is the highest interest

of the whole medical profession that the intelligence of people generally should be raised to a much higher level. There is neither hope nor fear that disease will be exterminated and "Othello's occupation gone," until long after the time when the body of the youngest of the young gentlemen who have received their degrees to-day shall have passed into animal, vegetable or mineral combinations in which his most intimate friends would fail to recognize him. Only too likely he may, before then, have produced in the wonderful biological laboratory of his own body millions of germs, which, duly scattered on the earth or in air or in water, will have originated horrible diseases, and so brought "grist to the mill" of his professional contemporaries or successors. And so long as diseases last it is well that they should be treated in a rational way, and each disease, as it appears, by some one responsible person. As a matter of fact, among the irrational classes, nobody knows by whom they are treated. The acids of the doctor will be neutralized by the alkalies of Mrs. Williamson, who had exactly the same trouble herself two years ago and found the medicine she persuaded her neighbor to take "act like a charm." Much knowledge of the use of drugs is supposed to be acquired by having had a large number of children, and many a good woman who has added a dozen to her own family has inadvertently rendered the most valuable assistance towards the extermination of a dozen of somebody else's family. Such are the compensatory processes of that greatest and most uncompromising of all Malthusians, Nature, who understands full well the relation between supply and demand, and maintains the dignity of mankind by neutralizing its fecundity. Of course the public schools teach the rudiments of physiology, with great advantage; for though Politics are in everything, the valves of the heart and the secretion of bile, and almost every organ (except perhaps the brain), is just the same in a Republican as in a Democrat; and notwithstanding the enormous practical difference between a bar-tender and a Prohibitionist, their abdominal viscera and the processes of digestion are the same in both, and a man who likes the feeling can make himself just as sick with "unfermented wine" as with sour lager.

The medical profession, however, will be—though this is not their primary work as physicians—the chief teachers of so much of those arts and sciences which pertain to the preservation and recovery of health, as it is necessary that everybody should know, in order that if he become a "patient" at all, he may be a good and sensible patient. And for teaching, in addition to the knowledge of the thing to be taught, there is one absolutely necessary *moral* qualification, and that is *perfect sincerity and unreserve.* What would anybody think of a clergyman who should undertake to teach all the doctrines of the Christian religion *except* thirteen and a half? Or of a teacher of arithmetic who should deliberately omit from the multiplication table the first five multiples of seven and the last three of nine? I do not, of course, mean that every teacher must teach everything that he knows, but that he must teach the whole of what he professes to teach. And the medical profession have been teaching and are still teaching in a very lame and imperfect way: either far too much or not nearly enough.

Take for example, *instruction through prescriptions.* It is quite necessary, in ordinary cases, at least by the usages of this country in large cities, that a physician shall write a prescription for the medicines he orders, which will be made up by a quite independent druggist, who will keep the prescription and be able to produce it in evidence if occasion should arise. This is often a very important protection to the physician. Of course it has the incidental advantage or disadvantage of informing the patient himself what medicine he has been taking or is to take. But writing prescriptions is being rapidly rendered unnecessary by the skill of manufacturing druggists, who prepare very potent medicines in a very concentrated form, in the form of pills or granules, or for hypodermic application,

so that a modern practitioner can carry more medicine about with him in his coat pocket than was contained in the surgery of an old-fashioned English doctor. He is called in to administer to severe suffering; everybody is seriously alarmed; all the people concerned want immediate relief. The physician brings out of his pocket a little tube of granules, one or two of which he then and there administers. Or he dissolves something in a very little water, and by means of a sharp-pointed syringe, inserts it under the skin. The relief may be almost immediate; the treatment may be the very best treatment known to medical science. But supposing that the patient under this kind of treatment should suddenly die, who is to know the cause of death? Is it the disease or the medicine? Many alkaloids are so much alike, that in small quantities and without a miscroscope they can scarcely be distinguished. Who shall say whether a sudden death may not be attributed to the mistake or carelessness of the physician? That, however, is exceedingly improbable. On the other hand, it might seem desirable that people generally should be treated with a rational confidence, mingled with an unyielding firmness, which would in most cases be submitted to without the slightest objection. It is well that people should know what they are taking, even though the medicine be exceedingly dangerous and altogether unsuitable for administration by unprofessional hands. Of course some old woman or old crank will entirely refuse to take mercury or opium, or even alcohol; and it might perhaps be doubtful whether it would be better to let these stupid old creatures die or save them by a pious fraud. But, speaking generally, it seems better to be straightforward—to write a prescription or to say what the treatment is; and if any objection be made, to give up the case. A physician is almost always master of the situation. "Doctor," a patient may say, "my system cannot bear mercury; I cannot take opium in any form; I am a conscientious and unalterable teetotaler; and you must prescribe for me accordingly." Surely a physician might reasonably reply: "You know nothing whatever about what you call your system, and much less about the action of drugs. If you are going to prescribe for yourself please let me know, and I will waste no more time upon you." And if no other physician would take a patient who had been refused on such grounds, that kind of nonsense would soon be exterminated. There are just two alternative modes of action: a physician might say, I am adopting in your case such and such a treatment, for such and such reasons; or he might say, I am treating you as I think best, and I can't take the trouble to explain to you what I am doing. In the first case he will be a very useful educator; in the second case he will almost certainly be superseded by "Widgeon's Purifying Pills, which arrest every disease at its fountain by purifying the blood." For the proprietor of every patent medicine is eager to explain. He will even publish diagrams of the blood-vessels or alimentary canal, and let you see with your own eyes, his remedy, pursuing the enemy around every corner, until he is caught and slain and cast out of the system for ever and a day. But what truly good men our doctors must be! How easily they might bamboozle us, and what fun it would be to them! Sometimes I fancy—when it can do no harm—they do relieve their minds by a little romancing. In my own visitations, which often precede or follow closely the visitations of the medical man, I feel as sure as I can be of anything that he has been playing off his innocent joke and putting his endorsement on an impossible anatomy, or on an equally impossible disease

But here you may very naturally protest that I am getting entirely ont of my depth; and so I will not only retreat with what grace I may, but boldly maintain that it is ridiculous and unreasonable to expect physicians to be general educators. And here I shall have the support of at least one of the most useful and self-sacrificing of our classes of society—the owners of real estate. We can scarcely conceive what

would become of us if we were unable to rent a house; and to save us from the sheer barbarism which would be the result, our landlords take the greatest pains to let to us their houses, though we perfectly well know from their own lips, that they let us their houses at a loss. And herein they have no other compensation than the delights of a good conscience and a generous disposition. Though a retail grocer, for instance, may be cheated in the matter of sugar, he can cheat back in tea; but if a landlord does his house-letting at a loss, where in the world is he to look for his profits? He acquires, quite naturally, in spite of his unselfishness, an abhorrence of being imposed upon, and this feeling, which is originally egoistic, becomes rapidly refined by a process with which Mr. Herbert Spencer has long ago made us familiar, into the purest altruism. He hates to see a *physician* imposed upon in any way, and especially in the matter of drains and bath-rooms. Why can't you be satisfied—he asks, with just indignation—that the doctor should cure you without taking him into every dark corner and asking him if he does'nt smell something? Of course he does'nt like to confess that his nose is'nt as good as yours, so he smells everything that you smell, only more so; and he tells you what every smell is called, and how injurious it is to health. This it is, in fact, that baffles his heretofore invincible skill in the treatment of your own ailment, which clearly has a malarial complication. A good, honest thoroughbred disease, like small-pox, for instance, that comes out as plain as the nose on your face, and sometimes even plainer, one knows what to do with; but any doctor may be mastered by a vulgar knave that haunts sewers and can make his escape through the smallest crevice, and get in again the minute you turn your back, through the waste-pipe of a bath-tub. And so a doctor is expected to know and teach all about plumbing. He is expected to advise you about spending hundreds of dollars of your landlord's money in an entire new system of drains. And not only is he thus himself imposed upon, but landlords are ruined, so that whole blocks of real estate become poverty in disguise, and to inherit in fee simple the whole of the Fifth avenue, in New York, would be equivalent to bankruptcy.

Let us agree, then, that our medical advisers are not compelled to know and teach everything—not even how to tear down a large mansion and burn all its contents for the sake of escaping the infection of measles. It is cheering to reflect how fairly well our ancestors got along when they were wholly ignorant of bacteria and disease germs, and when they had a vague notion, derived, perhaps, from their familiarity with stables, that a good strong smell was wholesome. The average duration of life, we are told, is steadily increasing; but perhaps life is like gold wire or leaf, and as Tom Hood says, "gets the narrower for going further." I have known the natural affections for a time obliterated by the dread of catching scarlet fever. I am free to confess that I don't care to examine with a microscope the water I must drink at dinner; and I should feel suffocated if I were allowed only to breathe the air that had been filtered through cotton-wool. Perhaps our jolly old ancestors were more gouty than we are, but they were not obliged to have every meal weighed and measured and chemically analyzed lest they should eat anything that did *not* "agree with them," or an ounce too much of anything that *did*.

Still, as our excellent friend Mr. Brooke, in *Middlemarch*, used to say so often, with his wise nod, 'you mustn't go too far, you know, not too far', and it would be sad indeed if our doctors were to confine themseves so exclusively to their medical pursuits that they had no time left for the amenities of life or general intellectual culture. We all remember the triumph with which the crafty Major secured for his love sick nephew, Mr. Arthur Pendennis, a letter which had been really written by the object of his unalterable and unfathomable affection, and not, as on former occasions, by her amanuensis. "I *will* see her," said Arthur, "I'll ask her to marry me once more; I will. No one

shall prevent me." "What, a woman who spells affection with one f ? Nonsense, sir, be a man, and remember that your mother is a lady. She was never made to associate with that tipsy old swindler or his daughter. Be a man, and forget her as she does you." "Be a man and comfort your mother, my Arthur," said Helen, going and embracing him. It is sad, considering how enthusiastic and determined lovers are in their first two or three experiments—sad it is, but true—that defective orthography has often been "the slip between the cup and the lip." And when a surgeon who could cut off your leg "as clean as a whistle," or a dentist who could draw every tooth in your head as pleasantly as he would draw a cork out of a champagne bottle, writes you a letter which is unconventional in spelling, innocent of punctuation, and confused in the matter of capital letters, the most enthusiastic admirer of professional skill is conscious of a shock. The English language is embarrassingly skittish, and if she is to be "wrote" with accuracy, she must be treated as delicately as tracheotomy or the removal of a cataract. Certainly a family doctor must not be a ruffian, nor a snob, nor (above all), that indescribable horror of which I know no name but the English "cad." He sees you at every possible disadvantage; he handles your very person with the most frightful familiarity. He catches your family in all stages of unpreparedness to receive company; he learns inevitably a good deal of your domestic life. And it is not asking too much that the man who must needs get this kind of power over you, even for your own good, should be himself a gentleman. A true gentlemen, moreover, will never be a quack. His instinct as a gentleman will preserve him from making bumptious professions which he knows he cannot justify. But given, of course, sufficient professional knowledge or skill, I would rather entrust myself to a moderately skilful gentleman, than to a superlatively skillful not-gentleman.

Perhaps, however, the alternative never presents itself in real life. A gentlemen may not be a perfect physician, but a perfect physician can hardly fail to be a gentleman. A *perfect* physician!

But what physician needs to be perfect? Routine practice is sufficient for routine cases. Many—perhaps most—diseases will get well of themselves if you only let them; and routine practice seems often to consist in keeping the patient and his friends from meddling with the natural cure. Nursing, ventilation, diet—these seem to be relied upon more and more. There are few diseases from which one would shrink with greater horror than from typhoid fever, and of this Dr. Broadbent says: "It is now almost universallp recognized that it is not in the power of medicinal agencies to cut short an attack of fever, or indeed, effectually to modify its course; no specific treatment therefore has to be described." To be sure, nobody who was not mad would willingly encounter typhoid fever without a physician. And in cases far less serious, or far more easily managed, even when "routine" treatment is enough, the difference between one who knows just enough to get decently through and the master of his profession is quite immeasurable.

The ideal physician! What knowledge to him can possibly come amiss? Anatomy, physiology, materia medica, a book-knowledge and some clinical knowledge of diseases—will he be content with that? Physics, chemistry, botany, optics, acoustics, electricity, the construction and use of instruments of exquisite precision and complexity, psychology, ethics, mental pathology—what branch of knowledge can he venture to omit? What conceivable matter or force may not endanger health, or retard recovery, or produce death? Indeed, the most powerful of all forces that can be brought to bear upon the body, both for good and for evil, in religion. Religion has made hundreds of people murderers or suicides, and has driven hundreds of people mad; it has sapped out of them, by its terrific despair, all the little hope they had of recovery from sickness; it has convulsed them with excitement when what they

needed above all else was calm. On the other hand it can "medicine" a troubled spirit "to a sweet sleep" far beyond the power of

"poppy, or mandragora
Or all the drowsy syrups of the world."

There are mixed cases of treatment in which an experienced clergyman is quite as good a judge as an experienced physician. The physician may know better than the clergyman what harm excitement might do; but the clergyman may know better than the physician whether what I may call religious treatment would produce excitement. I never administer opium, but I often administer, to the best of my poor ability, religious consolation. I have known it produce calm and patience and confidence in the physician's skill, and obedience to his orders, which every other treatment had failed to produce. As I do not believe that either our personal life or the mercy of God are determined by the death of the body; as I do not believe that the sins and neglects of sixty years can be annihilated by the untested repentance of the few last minutes of earthly consciousness; I never feel it necessary to terrify a departing soul or to excite it to a spasmodic effort to achieve the impossible. On the other hand, I have known cases where I have not an atom of doubt that the immediate cause of death was the refusal of a physician to allow his patient the ministration of his religious adviser.

And here we find ourselves face to face with that solemn mystery which Mr. Wm. Rathbone Greg has well described as one of the "Enigmas of Life." To him I owe no small part of what, morally and intellectually, I am to-day. Nor do I prize his writings the less because he doubts much of what I firmly believe, and interprets far otherwise than I should many of the facts and doctrines of the Christian religion. The great mystery, the "Enigma of Life," to which I refer, is this: that in this life—surely, therefore we may hope there must be another—we can only attain perfection is one part of our complex nature by sacrificing the perfection of some other part. If you give free scope to your emotions and affections you must sacrifice your intellect. If you are determined to secure intellectual perfection and to be loyal to conscience, you must be prepared not only on some great occasion, to throw away your life, but *always* "to keep under your body and bring it into subjection." The university athlete is not generally first wrangler. The training of a prize-fighter does not produce delicacy of perception and vivid imagination. If we fed like animals we should sleep like animals; and instead of meditating upon the problems of life and the mysteries of religion we should hang our noses over a fence and chew the end. The physician must do his own work; cure disease; keep body and soul together as long as he can. But, for my part, I am free to confess that I would never sacrifice a child's education to his health; and that I think the time comes much oftener then we suppose when "to die is gain."

Throat Disease in Man and the Lower Animals.—Another suggestion as to the existence of a connection between diphtheria and allied throat diseases in the human subject and some similar disease in a lower animal comes from Darton, near Barnsley, where Dr. Bruce Low, of the Local Government Board, is making inquiry as to the deaths of twenty children from diphtheria and so-called "croup." The clerk to the Local Board of Health has reported that in a number of cases there seem grounds for believing that the disease had been communicated to children by means of cats which were ailing, one of them fatally so. Whatever the actual facts in this case may turn out to be, it is quite certain that we already know enough to call for much greater caution than has heretofore been observed in our dealings with animals, such as cats, and also with certain birds, when these appear to be suffering from throat affections.—*Lancet.*

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BALTIMORE, SEPTEMBER 13, 1889.

Editorial.

THE ELIXIR OF LIFE.—If there is one nation above all others that ranks as genuine enthusiasts, it is the French. While the sturdy phlegmatic Teuton plods along in his work, spending a year and a day, on some unpractical point, the fiery Frenchman rushes into print and unenviable notoriety with some remarkable discovery which has a grain of truth at its foundation.

Brown-Séquard's startling announcement that he had discovered the elixir of life or rather that he could prolong life, naturally aroused universal interest. His methods were studied and experiments repeated always with success by the obscure physician and with many failures by the men of reputation. Now after the first wave of enthusiasm has passed by and the whole thing has been calmly viewed, we find some element of truth and much that is not to be relied on.

Again we are taught that here also is nothing new, for if popular statement be correct, savage tribes and others have attempted some similar experiments to prolong life. That there are dangers from the injection of old and septic fluid no one will deny and therefore any experiments should be carried on only by conscientious men and not by such who seek to enrich themselves.

The true value of any apparently remarkable discovery can only be appreciated when false enthusiasm has been quited and calm judgment and experience has given an unbiased opinion.

Miscellany.

BERI-BERI.—In a paper upon Beriberi, Surgeon W. F. Thomas (*Indian Medical Gazette*, April, 1889), states that the affection is known to be epidemic in Ceylon, in certain parts of India, in Burmah, the Malayan Peninsula, Siam, Japan, Islands of the Indian Archipelago, West Coast of Africa, and in South America. Among 177 cases, no less than 128 were under thirty-five years of age and 152 were males. Debility following ague, renal disease, and scorbutic cachexia favor its occurrence. It is influenced by changes of temperature, and in jungle districts it prevails after the rains. It is most common among natives, but Europeans suffer when dwelling in endemic districts. It is not contagious. The proximate cause in a large number of his cases was due to the presence of anchylostomum duodenale; and Mr. Thomas remarks that the only appropriate treatment consists in "the expulsion of the parasites from the intestines by small doses of calomel frequently till free purging has set in, or by the

administration of thymol, proper dietetic rules, and removal from the beri-beri area. Until the parasites are expelled, other treatment is of no avail." The paper deals fully with the symptoms and pathology of the affection, and a comparison is made between the acute, subacute and chronic forms.—*Lancet.*

FACTS AND FALLACIES.—We published last week, at the request of Dr. Brown-Séquard, an account of his recent auto-inoculations, which have given rise in various quarters to some more or less sensational statements. We freely granted the use of our columns to the veteran physiologist whose former connection with the London medical world, and high position in scientific circles, render it incumbent on us all to receive what he has to say with respect and courtesy. At the same time we may be permitted to express the gravest possible doubts as to the remarkable results which he claims from his inoculation of the senile organism with the fluids expressed from the glands, in a state of functional activity, of young animals, even although these glands be of the highest order from the secretory point of view; and it would require far more evidence than he has adduced himself, or than has been afforded by the subsequent experiments of M. Variot, to carry conviction to our minds. We base our objection mainly upon the known anatomical and physiological facts of senile degeneration and denutrition, which, with all deference to one whose life has been passed in the pursuit of physiology, seems to us to afford insuperable obstacles to any such extended recuperation of function as is suggested in the paper by Dr. Brown-Séquard. A temporary excitation or exaltation of function is conceivable through the agency of the nervous system, and it is just possible that such is the explanation of the results gained. We note that the learned Professor has now returned to the condition experienced previous to his injections; and we cannot see in this, as he does, any proof of the efficacy of his method. Medically speaking, we should be justified in expressing a fear lest such experiments may really injure the organism they are intended to revitalise; and we sincerely trust that no individual who is subject to the "disease" of "old age" will be rash enough to follow an example so enthusiastically, though, we think, unadvisedly, set by our esteemed colleague.—*Lancet.*

ŒDEMA OF THE BRAIN.—According to Dr. Hugenin, of Zurich, inflammatory œdema of the brain or diffused encephalitis occurs after perforating wounds of the skull with injury to the brain, also in tumors of the brain where the centre breaks down and softening is going on towards the periphery, also in abcess and infectious diseases of the brain, and more rarely in cases where there is hæmorrhage or a hæmorrhagic infarct. It is, however, to the non-inflammatory variety of cerebral œdema that Dr. Hugenin has devoted his attention specially. Having made a large number of post-mortem examinations in cases of this kind, he has come to the conclusion that so long as the vessels within the cranial cavity maintain their normal condition, there is no fear of any fatal œdema resulting from circulatory disturbance in cerebral disease; but when there exists such morbid conditions as obliteration of the lymphatics or increased intra-cranial pressure due to diminution of the cranium or more particularly to an arrest of its ordinary growth, fatal œdema of the brain may be induced. He found that in children who had died from hyperæmia or œdema of the brain or slight hydrocephalus there was commencing meningitis, usually of an infectious character—that is to say, due to the presence of streptococci. Fatal congestive œdema in children was found to occur only when there was obliteration of the channels leading from the space beneath the pia mater or obliteration of the Pacchionian bodies, such as is set up in the course of chronic meningitis.—*Lancet.*

SPONDYLALGIA.—Dr. Max Buch describes in a preliminary communication to the *St. Petersburger Medicinische Wochenschrift* a nervous cardialgia, the pain in which he discovered to be strictly confined to the anterior surface of the vertebral column, and to be caused by pressure. The pain is so exclusively due to pressure upon the bone that in those of his forty cases in which it was referred to the epigastrium the result of pressure over this region was not merely absence of pain, but rather a feeling of comfort, while pressure on the vertebral column in the umbilical region caused not only local pain, but a neuralgia also, radiating into the epigastrium, and exactly corresponding with the spontaneous pain. Spondylalgia may, according to Dr. Buch, reach so far down as the sacral promontory; in which case, however, some parts of the vertebral column are usually more sensitive to pain than others, or special localities alone are sensitive to pressure. Spontaneons pain also may affect the whoie column, and patients often complain during attacks of gastralgia of a pain affecting both sides of the sternum, extending to the clavicle, or over the middle of the chest and the lower half of the sternum. In most of these cases Dr. Buch succeeded in producing the same pain by exerting pressure on certain points of the abdominal part of the vertebral column. Spondylalgia is, indeed, like true neuralgia, apt to radiate from any point over which pressure is made towards some distant points. the pain being not only local but also remote. Dr. Buch believes that he has made out a correspondence between certain points: pressure for instance, about an inch above the umbilicus generally causes pain in the region of the sacro-iliac synchondrosis, or a little above the sacrum; pressure about an inch below the umbilicus causes pain, radiating into the epigastrium, and especially into the pit of the stomach. In one patient, a woman of forty, pressure in the umbilical region cansed a pain like compression in the middle of the vertex, exactly similar to clavus hystericus. Pressure on the spinous process was rarely painful. Other symptoms of spondylalgia are malaise, eructations (often sour), ravenous appetite, or a feeling like that of hunger. The bowels are normal or a little constipated; diarrhœo is rare. In some cases painful pulsation of the abdominal aorta was observed. All the symptoms of spondylalgia most frequently denote general neurasthenia. They also occur in chlorosis and diseases of the uterus. The affection is, pathologically, a neuralgia of the vertebral plexus of the abdominal sympathetic, to which the name "spondylalgia" has been given by Dr. Buch as being short and graphic. His treatment consists in a subcutaneous injection of a 50 per cent. solution of antipyrin into the abdoinal region, or, in cases of neuralgia, at the seat of pain. The injection is rather painfnl, and the puncture if left to itself remains so for many days. If, however, massage is practised immediately after the injection, first lightly and then with some amount of energy, to disperse the liquid, the sensitiveness disappears in about ten minutes. Dr. Buch used the antipyrin injecttion, according to circnmstances, daily or every two or three days. A complete cure occasionally took place after one or two injections, but sometimes only after ten or more. Improvement was generally observed after the first injection. The original affection must, of course, never be neglected, and, in chlorosis the spondylalgia has been known to disappear under the administration of iron. He mentions as particularly interesting from the therapeutic point of view cases in which the spondylalgia disappeared under long coutinued palpation. so that massage of the abdomen may in some cases be an excellent method of treatment. In conclusion, the author states it as his opinion that the affection is very common, and that every case of cardialgia and dyspepsia ought to be examined for traces of it.—*Lancet.*

THE PROGNOSIS OF CORYZA IN YOUNG CHILDREN.—Dr. J. Simon, of Paris, recently writing upon the prognosis of coryza and laryngitis in young children, divides his observations under two heads: First, the prognosis of the above disease in infants, and, second, the prognosis in children above two years of age.

Acute coryza in infants always offers a grave prognosis. The accumulation of mucus in the nasal cavities causes difficulty in breathing, insomnia, and also a certain amount of fever. The prognosis is still more unfavorable if the disease takes a chronic form. The affection may become very intense and accompanied with fever and gastric troubles. Finally, it may also give rise to other serious troubles, and extend to the larynx and bronchi.

When occurring in children over two years of age, acute coryza is not so grave an affection, but still should be actively dealt with in order to prevent its encroachment on the larynx and bronchi. But at this age alimentation is accomplished with ease. Nevertheless, the disease may take a chronic form and give rise to osteoperiostitis, ozæna, tonsillitis, and even nasal polypi.

If in infants coryza takes a clearly acute form, it is always accompanied by more or less fever. In syphilitic cases, however, fever is absent, and there is a continuous running at the nose and a discharge of mucus in which, at times, traces of blood may be detected.

The prognosis of diphtheritic coryza is similar to that of diphtheria. Trousseau is of the opinion that laryngeal diphtheria is more fatal than the nasal form; but Simon considers either equally serious.—*Revue gén. Clin. et de Thér.*, June 20, 1889.—*Med. News.*

THE TONSILS IN PHTHISIS.—Dr. Dmokhovski publishes in a Polish medical journal, the *Gazeta Lekarski*, some important observations on the condition of the tonsils and the follicular glands at the base of the tongue in phthisical subjects. Strassmann had previously made some observations on the tonsils, and had found them affected in thirteen cases out of twenty-one which he examined. Dr. Dmokhovski was able to show some affection of the tonsils in every one of the fifteen cases examined post mortem, the lymphatic glands at the base of the tongue being also affected in nine of these cases. The lungs were in every instance decidedly affected, and in five there was slight tuberculous ulceration of the larynx. The ages of the subjects varied from eighteen to fifty-six. Presumably the tonsils were infected from the mouth, the bacillary infection at first affecting the epithelial layers and subsequently the deeper tissues—viz., the lymphatic sinuses and the follicles themselves. The tuberculous character of these changes was made manifest either by the existence of large disseminated collections of Koch's bacilli, or by the concomitant signs of general inflammation of the connective tissue, or by the occurrence of fully developed tubercles. These showed themselves first of all in the connective tissue between the follicles along the lymphatic vessels leading to neighboring cervical lymphatic glands. Ulcerations of the tonsils were observed in the crypts, but never on the free surface of the glands; sometimes cavities were found in the tonsils. In the living subject no marked affection could ever be detected by the naked eye in the tonsils. The absence of disposition to external ulceration is explained by the supposition that the deeper tissues form a far more suitable soil for the development of the tubercle bacilli than the superficial tissues—that is, the mucous membrane covering the surface of the gland.—*Lancet.*

SULFONAL.—Dr. T. Lauder Brunton says, in one of the Croonian Lectures, that sulfonal appears to be one of the most effective of all the newly introduced hypnotics, and although it does not, like morphine, compel sleep, it induces sleep in a pleasant manner, and has few disagreeable effects and little or no danger. Sulfonal has recently declined in price. —*The Journal.*

The Strength of Brain Functions.—That different functions of the brain have different strengths is not always recognized. A violent poison may paralyze the whole of the functions, and the rate at which they become extinguished is so great that it is impossible to say which goes first. In anæsthesia, by means of ether the auditory perceptive centres seem to endure longer than the other perceptive centres; indeed, an expansive change appears to occur in them prior to their final closure. What we want to know is something more of the differing strengths of brain functions. This would be a great aid in the study of symptoms. At present the variations in the clinical course and progress of disease are as inexplicable as they are remarkable. That some further experimental researches on the relative strengths of the various nervous functions of the body would bring out facts of importance cannot be doubted.—*Lancet.*

Pathology of Extensive Burns.—Oscar Silbermann, of Breslau, finds that in extensive burns the corpuscles alter their form, and are able to exert less than their normal resistance to heat, drying, compression and staining. In consequence of these changes, thrombosis and stasis in different organs are very frequent, especially in the lungs, kidneys, stomach, bowels, spleen, liver, skin and brain, and most of all, in the smaller branches of the pulmonary artery. The stasis in the lungs produces a very considerable impediment to the emptying of the right ventricle, with enormous venous congestion and dangerous arterial anæmia. This again leads to appoplexies and parenchymatous alterations in the above-mentioned organs, also to dyspnœa, cyanosis, coma, a small pulse, angina pectoris, eclampsia, anuria and to a diminution of the surface temperature.—*Lancet.*

Subcutaneous Lymphorrhagia.—Dr. Neufeld mentions, in a Polish journal, a few cases which have come under his notice, where, in consequence of some injury, extravasation of lymph from a lymphatic vessel has occurred. Six years ago a man was brought into the hospital who had been struck on the thigh with a large piece of coal. There was no discoloration of the skin, but there was marked fluctuation over a large portion of the anterior and lateral aspects of the thigh. Some years later another patient came into the hospital who had received a blow on the back; here also there was extensive fluctuation, involving the whole of the dorsal region. With regard to the first case, although Dr. Neufeld suspected from the first that the fluctuating fluid was lymph, he was unable to feel certain of it, and up to that time no description of lymphorrhagia had been published in any of the well-known text-books. As the tumor showed no signs of diminishing after a couple of months, he made an extensive incision into it, thus emptying the sac, after which the wound healed rapidly, without fever. In the second patient, the fluid disappeared spontaneously after the patient had been lying on his back for six weeks. A third case is mentioned in which no change took place for six weeks. Dr. Neufeld is disposed to agree with Gussenbauer as to the origin of this accident, and believes that the best treatment consists in laying the sac well open during the first few days. —*Lancet.*

Treatment of Pneumonia by Application of Ice.—Dr. Fieandt, writing in *Duodecim*, a Finnish medical journal, states that he has now treated no less than 106 cases of pneumonia with ice, and with the best results. Though ten of the cases were of double pneumonia, only 3 out of the whole number succumbed, notwithstanding that the epidemic was by no means a slight one. The method adopted was to apply over the affected lung an india-rubber bag containing ice, continuously for from twelve to twenty-four hours after the crisis. In addition to the local treatment, the patients were given such medicines as are usually employed, that is to say, opium, ipecacuanha, digitalis, brandy, &c. The method has, we may remark, received of late some attention in this country.—*Lancet.*

Medical Items.

Dr. Holmes celebrated his eightieth birthday recently.

The annual meeting of the American Academy of Medicine for 1889, will be held at Chicago, Ill., November 13th and 14th, being postponed to that date by authority of the Council.

At Rome the great Hospital of the Santo Spirito is about to open a *succursale* (branch), near the Bocca della Verità, for the accommodation and treatment of chronic cases.

The Italian Medico-Psychological Congress (Congresso reniatrico), will this year be held at Novara, within easy distance of Turin and Milan, from September 8th to the 14th. These Congresses are triennial, and there have already been five of them.

An effort has been made to get Dr. Kiernan to resign his position as Superintendent of the Cook County Asylum for the Insane, Chicago. Dr. Kiernan refuses to resign, and says that if the Commissioners wish to get rid of him they must dismiss him.

Owing to the absence of a number of the fellows of the American Rhinological Association in Europe, and to the Pacific Coast, the annual meeting will be postponed until October 9th, 10th and 11th, 1889, at which time it will be held at the Palmer House, Chicago, Ill.

It is announced by foreign exchanges that the arrangements for the International Medical Congress in Berlin next year, which opens probably on August 6th, have been confided to Profs. Virchow, Von Bergmann and Waldeyer. Invitations have already been extended to all German medical societies.

Dr. Heneage Gibbes, who has been Professor of Pathology in the University of Ann Arbour, Michigan, since January, 1888, has recently been appointed to the Chair of Histology in addition to that of Pathology. By this appointment Dr Gibbes will have a splendid laboratory with trained assistants and every facility for carrying on original work.

The Municipal Council of Rome has decided to devote a sum of money to the formation of a Pasteur Institute. Confidence in M. Pasteur's treatment of hydrophobia is said to be increasing in Italy, as is shown by the fact that little by little all the principal towns are providing buildings for the treatment of the disease by inoculation.

Professor Lankester proposes, in *Nature*, that this new word, "Mithridatism," be admitted to the scientific vocabulary, to signify that immunity from the effects of a poison which is induced by the administration of gradually increased doses. The selection of the word has reference to the fable concerning Mithridates, King of Pontus, that he became so charged with the poisons he experimented with that he obtained an immunity from them all.

Corrections in Dr. E. F. Cordell's recent article: Page 347, 5th line from top, for "questions" read "the question;" 9th line after "interest" read "manifested." Page 348, footnote, for "from the bench" read "from the case." Page 349, 5th line from top, for "franchises" read "functions." Page 350, 9th line from top, for "wants" read "merits;" 30th line, put quotation marks after "behalf." Page 351, 14th line from top, for "dissecting" read "dissections." There are several other minor errors.

An Army Medical Board will be convened in New York City, New York, October 1, 1889, for the examination of such persons as may be properly invited to present themselves before it as candidates for appointment in the Medical Corps of the Army.

Application for an invitation should be addressed to the Secretary of War, stating date and place of birth; place and State of permanent residence, and accompanied by certificates, based on personal acquaintance, from at least two persons of repute, as to citizenship, character and moral habits; testimonials as to professional standing from the professors of the medical college from which the applicant graduated, are also desirable. The candidate must be between 21 and 28 years of age, and a graduate from a regular medical college, evidence of which, his diploma, must be submitted to the Board.

Further information regarding the examinations and their nature may be obtained by addressing the Surgeon General U. S. Army, Washington, D. C.

Original Articles

THE TREATMENT OF SUCH EAR DISEASES AS ARE USUALLY SEEN BY THE GENERAL PRACTITIONER.

BY HIRAM WOODS, M. D.,
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SYMPTOMS OF EAR DISEASES, EAR-ACHE, DEAFNESS, TINNITUS, OTITIS EXTERNA DIFFUSA. PAPER III.

The diseases which have so far been considered, are, with the exception of scaly eczema of the canal, entirely on the surface, and easily recognized. They are not usually painful, nor are they apt to cause disturbance in the hearing. When the diseases of the canal are taken up, we are at once confronted with certain symptoms which may result from trouble in either the auditory canal or middle ear. The situation of the disease must now be determined with the reflector and ear speculum. Before considering troubles in the canal, it will be well to look at these general symptoms, and to have it fully understood that they are *only symptoms* of some ear diseases. In the order of their importance, from the general practitioner's standpoint, they are pain, deafness and tinnitus. Vertigo is also an occasional symptom of ear disease, but it rarely occurs without one or another of the above.

"Ear-ache" is a very common trouble. If an individual has once experienced it, he wants no more proof of its severity. In spite of its frequency, of its severity, and of its possible importance as a symptom of serious ear disease, it seems to be looked upon by many physicians as the veriest trifle that can claim attention.

Not long ago, a little girl was brought to the hospital by her mother, after the child had had three days of intense suffering. The mother stated that the family physician had told her "it was '*only ear-ache*,' would pass off in a day or two, and it was not necessary for him to see the child." Her story may or may not have been true; but the general failure to pay proper attention to painful ears makes such a state of things certainly possible. The child had an acute otitis media, which ended in perforation of the drum and an otorrhœa requiring tedious treatment. In case of pain anywhere else, a diligent search is generally made for a *cause;* the ear should be no exception.

The results of this indifference are (1), that the patient is often compelled to endure avoidable suffering, and (2), that valuable time is lost in instituting proper treatment. A few days' delay will sometimes, as in the case mentioned, bring about a serious secondary disorder and permanently injure the hearing. A third result grows out of the fact that the patient and the immediate friends at once resort to some of the numerous domestic remedies; these are innumerable. I do not think I can improve on the following presentation of this subject, which I copy from Prof. Roosa's work:

"The popular remedies for ear-ache, dependent upon whatever cause, are usually sweet-oil and laudanum, molasses, Haarlem oil, glycerine and a roasted onion. The oil, laudanum and molasses are tolerably efficient, but although they are useful in their property of stilling pain, they are far inferior to the leeches, scarification and warm water. * * * The onion acts just as a poultice. * * Haarlem oil, and all similar stimulating applications, do nothing but harm, and increase the sufferings of the distressed patient. The laity resort to such applications and submit for days to pain in the ear, without going to a physician, because they have been taught by sad experience that doctors pay very little attention to an 'ear-ache.'"

Occasionally cases may be seen where a careful search fails to reveal any local cause for the pain. These cases of "otalgia" are usually more or less intermittent. They are sometimes associated with carious teeth, and recover as soon

as the latter have been put in proper condition. Syphilis, malaria and chronic rheumatism are also thought to produce ear neuralgia. Only the removal of the cause can cure this form of ear-ache. The pain is often alleviated by the instillation of a few drops (warmed), of the following:

℞. Atrop. Sulphat. gr. ss
Cocaine Muriat, grs. ii ss.
Aq. Dist. ℥ i.

Before using this it should be ascertained that there is no perforation in the drum membrane.

The chapter on "Oral Irritation," by Dr. Samuel Sexton, of New York, in his book "The Ear and Its Diseases," and the same writer's paper in the *New York Medical Record*, of June 1, 1889, set forth clearly the importance of noting the condition of the teeth in treating painful affections of the ears. Since reading these articles, I have looked more carefully for dental trouble in painful ear affections, and believe the connection between the two is closer than is commonly supposed. This subject will be spoken of again in a subsequent paper.

The diagnosis of Otalgia,—Aural Neuralgia–is, however, not justifiable when a *single* examination has failed to reveal the cause of "ear-ache." In inflammation of the external and middle ear, severe pain is frequently the first symptom. Intense suffering may result from a small focus of inflammation in the canal, which subsequently becomes a furuncle, or from the distension of the blood-vessels in the tympanum in the incipient stage of an otitis media; and this, too, before any objective changes call attention to the diseased part. In speaking, farther on, of these diseases, I shall try to indicate such treatment as will cut short the disease and relieve the pain.

During the stage of uncertainty (12 to 24 hours), or when it is impossible, for any reason, to follow a line of treatment which will remove the cause when known, a good deal can still be done to ease the suffering. Warm water poured into the ear will sometimes quiet the pain at once. Dr. Roosa says it occasionally aggravates it. I have never seen this, but I have seen it relieve promptly. The steam from boiling water in a cup, allowed to get into the ear through a towel funnel, acts just as the hot water does. The atropia and cocaine solution, already mentioned, I have often used with good effect in the early stage of an otitis media; in one case, I believe, it not only relieving the pain of a scarlatinal otitis, but aborting the disease. Hot flannels placed over the ear will often procure complete relief.

Chloroform vapor blown into the ear is said to relieve the pain, but I have never used it. Dr F. L. Parker, of Charleston, S. C., has told me of a friend with a large general practice who always carries a clay pipe and chloroform with him when called to see a child with ear-ache. A few drops of the chloroform are poured into the bowl, and the end of the pipe-stem inserted into the meatus. By blowing gently into the bowl the vapor is sent into the ear.

These palliative means—especially the warm applications—should be used only sparingly or discontinued altogether when the trouble is far enough advanced to enable one to make an exact diagnosis and relieve the pain by methods better calculated to cure the disease. In my opinion, opiates should not be used if it is possible to get along without them. Large doses are usually required to quiet earache.

Deafness and tinnitus may occur in diseases of the external, middle or internal ear. If on examination neither a mass of hard wax nor a foreign body is found pressing on the drum, the external ear can usually be acquitted of causing the trouble. As a general rule it may be said that in an inflammation of the middle ear the hearing is impaired and there is more or less tinnitus. In otitis externa, on the other hand, neither of these symptoms is apt to be present, except as the result of the accumulation of inflammatory products in the canal. The presence or absence of a decrease in the hearing power thus becomes a very useful guide in indicating (1) which part of the ear is diseased when the objective appearances are uncertain, and (2) whether an "otitis ex-

terna" is a primary affection or is secondary to an otitis media.

The differential diagnosis of middle and internal ear deafness hardly has a place under the subject of these papers.

DISEASES OF EXTERNAL CANAL.

Otitis Externa Diffusa, or Diffused Inflammation of the External Ear, is quite a rare affection. It assumes a variety of forms, from a slight diffused redness, usually in the osseous portion of the canal, to a severe and very painful inflammation, with so much swelling as to almost close the canal. At times there is a watery discharge from the ear, at others an "otorrhœa," consisting of pus and broken-down epithelium. Roosa had observed polypi in the canal resulting from otitis externa. The growth of aspergillus is also seen with this disease. I have had two cases under my care in private practice, one of which resulted from an accumulation of pus in the posterior wall and from the other external mastoid periostitis. Both of these cases followed, if they were not caused by, the prolonged use of oils and laudanum to quiet itching in the ear. As generally observed, the disease shows a marked redness in the lower part of the canal, often involving the external layer of the drum. Dr. Buck says that, commencing here, it shows no tendency to invade the middle ear through the drum. On the other hand, the skin of the canal becomes swollen, the epidermis peels off, the serous or sero-purulent discharge appears, and then follow some of the results of chronic suppuration. Occasionally such external sequelæ are observed as in the two cases I have mentioned.

Causes: Dr. Roosa states that the causes of otitis externa "seem to be chiefly local,"—*i. e.*—"the disease is caused by mechanical causes acting locally." He mentions irritation of the the ears by hairpins and toothpicks, and the "instillation of such agents as Haarlem oil, cologne water, camphorated oil, and so on." He thinks there may sometimes be "an antecedent eczematous inflammation" which has led to the use of these agents.

The symptom which brings the patient to the physician is pain or the discharge. In the uncomplicated cases I have observed, the pain has not usually been very severe—nothing like that in furunculosis of the ear. Unless the canal is filled with dried pus and epithelial scales, the hearing is not much affected, if at all. The main reason for describing this rather rare form of ear disease in this place is to show that all "otorrhœas" do not proceed from the middle ear. and to indicate how an "external otorrhœa" may be diognosticated from otitis media—a much more common and more serious trouble. When, on inspection, and after cleaning the canal, the osseous portion and the drum-head are found red, the following must guide us in deciding whether the primary inflammation is in the external or middle ear. 1. The hearing is impaired in middle ear troubles, not in otitis externa. 2. While watching the drum-head either have the patient perform the "Valsalvian experiment," or inflate the Eustachians by means of Politzer's air-bag. If the drum is intact it will be seen to move outward when the tympanum is inflated. If there is a commencing acute otitis media we will often fail to get the air into the cavity of the middle ear. If there is already an otorrhœa, the air will whistle through the perforation in the drum, provided the discharge comes from the middle ear. 3. By auscultation with a rubber tube connecting the patient's and physician's ears, the former's are inflated by the Valsalvian experiment or by Politzer's method preferably the latter. If the air enters the tympanum, the physician will at once perceive it, as well as the smallest perforation. 4. Siegel's Pneumatic Speculum is very useful, but the methods already described are usually enough. It is necessary to make this differential diagnosis in order to treat the case successfully. The treatment of otitis externa will be considered in the next paper.

The American Association for the Advancement of Science, will hold its next meeting at Indianapolis in August, 1890.

UNUSUAL SYMPTOMS FROM THE LOCAL USE OF IODOFORM.

BY WILLIAM C. KLOMAN, M. D.,
OF BALTIMORE.

Iodoform is used locally on wounds, abrasions, ulcerations, &c., to such a large extent that any unusual effects when used in this manner are of general interest to the profession, and I desire to put on record a very unique experience which I have lately had.

I was called to see a man suffering from varicose ulcers of the leg. The ulcers were not deep, but were extensive, two by four inches; indolent, painful, and attended with a copious watery secretion.

Having attended his wife some months ago for varicose ulceration of the leg, and having had excellent results from dusting the ulcers with iodoform, I directed the same treatment in the husband's case, with the usual injunction of keeping the limb well elevated, with quiet and rest. A few hours afterwards, I was telephoned to come and see the man, and on visiting him, found him in great agony. He was writhing in pain, although a man of powerful physique and considerable nerve. His skin was hot, but not dry; pulse 120, full and strong, yet he complained of intense chilliness, notwithstanding that he was covered up with several blankets and a heavy comforter. He complained of severe pain in the leg, which was burning and scalding in character. Opening the cloths which swathed his leg, I found an acute dermatitis of the leg, extending nearly to the knee. The skin was intensely injected, and there were numerous large blebs filled with a watery secretion, some of which had bursted, wetting the entire skin of the leg. The whole epidermis of the leg appeared to be more or less loosened from its attachment to the cutis. The iodoform had been washed off with soap and warm water before I reached him, yet I am satisfied that not more than 30 or 40 grains had been used.

I quieted his sufferings by a hypodermic injection of morphine and atropine, and dusted the leg with oxide of zinc. After some time his chilly sensations left him and he went off into a doze.

The next day he still complained of general malaise; his tongue was heavily furred, and he had quite a copious diarrhœa. The whole surface of his body was as red as a case of scarlet fever, and the epidermis showed a tendency to peel, not in large flakes, but in small furfuraceous scales. There was considerable tumefaction of the leg, and he complained of inability to close his hands, that is, to flex his fingers. This was due to swelling and infiltration of the palmar surface of the fingers.

He did not recover from these ill effects until after the fourth day.

There were at no time any symptoms of general depression, except the chilliness.

The iodoform was the same that had been used in his wife's case, and could not, therefore, have been of exceptional quality.

1519 John Street.

THE PROPHYLAXIS OF TUBERCULOSIS.

We have been requested by the Standing Committee to publish the following "Instructions to the Public, to enable it to know and be capable of protecting itself against Tuberculosis."* The document was communicated to the Academy of Medicine on July 30th. When it came on for discussion at the meeting of the Academy on Aug. 6th, the document was submitted to severe criticism, especially by Drs. G. Sée and Dujardin-Beaumetz, the latter declaring there was no evidence that tuberculosis was propagated through meat. Other speakers also criticised the recommendations

*These instructions have been drawn up by the Standing Committee of the Congress for the study of Tuberculosis, consisting of MM. Chauveau (President), Butel, Cornil, Grancher, Landouzy, Lannelongue, Legroux, Leblanc, Nocard, Rossignol, Verneuil, Villemin, L. H. Petit (Sec. Gen.). They have been seen and approved by MM. Bouchard, Brouardel, Potain and Proust.

in Clause 6, and eventually the debate was adjourned to the 13th inst.

I. Tuberculosis claims more victims in towns and even in certain rural districts, than any other disease. Thus, in 1884, for example, of 56,970 deaths in Paris, about 15,000, or more than one-fourth, were due to tuberculosis. The tuberculous are so numerous because pulmonary phthisis is not the sole manifestation of tuberculosis, as has been erroneously believed by the public. Physicians have good ground for considering as tuberculous many other diseases besides pulmonary phthisis. In fact, a number of cases of bronchitis, catarrhs, pleurisies, croup, (gourmes), scrofula, meningitis, peritonitis, enteritis, white swellings (osseous and articular,) and cold abscesses are tuberculous diseases as formidable as pulmonary phthisis.

II. Tuberculosis is a parasitic disease, virulent, contagious, transmissible, caused by a microbe—the bacillus of Koch. This microbe penetrates into the organism by the digestive canal with food, by the air-passages with inspired air, by the skin and mucous membranes following sores, punctures, wounds, and various kinds of ulceration. Certain diseases—measles, small-pox, chronic bronchitis, pneumonia; certain constitutional states due to diabetes, alcoholism, syphilis, &c.,—greatly predispose the individual to contract tuberculosis. The cause of tuberculosis being known, the precautions taken against its germs are capable of preventing its propagation. We have an encouraging example in the results obtained in respect to typhoid fever, the epidemics of which diminish in all towns where steps have been taken to prevent the typhoid germ mingling with drinking water.

III. The parasite of tuberculosis may be met with in the milk, muscles, and blood of animals serving for the food of man (ox, cow especially, rabbit, poultry). Raw or underdone meat and blood, being capable of containing the living germ of tuberculosis, should be prohibited. Milk, for the same reason, should only be consumed after being boiled.

IV. Owing to the dangers arising from milk, the protection of young children, who are so readily attacked by tuberculosis in all its forms (since there die annually in Paris more than 2,000 tuberculous children below the age of two years), should especially engage the attention of mothers and nurses. The ideal is of course lactation by the healthy woman. A tuberculous mother should not nourish her child. She should entrust it to the care of a healthy nurse living in the country, where, under the best hygienic conditions, the risks of tuberculous contagion are much less than in the towns. The child thus bronght up will have a great chance of escaping tuberculosis. If suckling at the breast be impossible, and it has to be replaced by feeding on cow's milk, this milk, given to the infant by the bottle or spoon, should always be boiled. The unboiled milk of asses and goats is far less dangerous.

V. Owing to the dangers arising from butcher's meat, which may preserve all the charrcters of health even when the animals are tuberculous, the public is largely interested in being assured that the inspection of meat, required by law, is properly and generally practised. The only absolutely certain means of avoiding the dangers of meat coming from tuberculous animals is to cook it to such an extent that the deep parts are as well done as the surface; only thoroughly roasted, boiled, or fried meat is devoid of danger.

VI. On the other hand, the germ of tuberculosis, being capable of transmission from the tuberculous to the healthy subject by sputa, pus, dried mucous discharges, and all objects laden with tuberculous dust, it ought, to insure security from the transmission of tuberculosis to: 1. Be that the sputa of the phthisical being the most formidable agents for the transmission of tuberculosis, there is a public danger in distributing them on the soil, carpet, hangings, curtains, napkins, handkerchiefs, cloths, and coverings. 2. Be well understood, in consequence, that the use of spittoons should be imposed everywhere and upon everybody. These should always be emptied into

the fire and cleansed with boiling water; they ought never to be emptied on dust-heaps, or in gardens, where they may tuberculise the poultry, nor into the latrines. 3. Not to sleep in the bed of a tuberculus subject; to dwell in his room as little as possible, and especially not to suffer young children to sleep there. 4. To remove from places, inhabited by the phthisical, individuals regarded as predispo ed to contract tuberculosis, subjects born of tuberculous parents, or having had measles, small-pox, pneumonia, repeated attacks of bronchitis, or suffering from diabes, &c. 5. Not to use objects which may have been contaminated by the phthisical (linen, bedding, clothing, objects of toilet, hangings, furniture, toys,) except after previous infection (high pressure steam, boiling, sulphur vapor, lime washing). 6. To insure that the rooms of hotels, lodging-houses, châlets, or villas occupied by the phthisical in watering-places or winter resorts are furnished and carpeted in such a way that disinfection may be readily and completely affected after the departure of each patient; the best plan would be that these rooms should have neither curtains, carpets, nor hangings; that they should be painted with lime, and the the floor be covered with linoleum.

The public is mainly interested in preferring hotels in which such indispensable hygienic precautions and measures of disinfection are carried out.—*Lancet.*

Society Reports.

PHILADELPHIA OBSTETRICAL SOCIETY.

Friday, June 7, 1889.

The President, Dr. Theophilus Parvin, in the chair.

Dr. Howard A. Kelly read the report of a case of cholocystorrhaphy followed by cholocystotomy and evacuation of one hundred and eighty-eight gall-stones, and recovery.

Operative procedures practised upon the gall bladder must always remain among the rarities in abdominal surgery, on account of the difficulties attending correct diagnosis, and the technical difficulties of treatment.

The indications for operation are also more rarely found in any intrinsic disease of the gall-bladder, but pertain rather to disease elsewhere, whether through the formation of calculi or stenosis of the common gall-duct, by which the bladder itself is transformed into a retention cyst.

And inasmuch as this is the chief characteristic of the disease, it also forms a very important factor in accounting for the failure of the operation to cure the patient of all disability, and to accomplish more than a mere technical operative success.

Technique. Inasmuch as the operation becomes one for the evacuation of the contents of the gall-bladder or common duct, the technique of the operation involves an answer to the simple question, "What is the safest method of opening the gall-bladder, and the safest after-treatment of the wound thus made?"

Under pathological conditions the contents of the gall-bladder are often irritating, and must be carefully excluded from the peritonæum.

The plan which I adopted in the following case is applicable to a certain percentage of all cases, and will yield excellent results wherever similar anatomical conditions are found.

The steps are,—

Incision through the abdominal walls at that point at which the gall-bladder or its notch in the liver are to be felt most prominently.

Suture of the gall-bladder to the margins of the incision.

Evacuation of its contents, either immediate or after the visceral and parietal peritoneal surfaces have united.

This preliminary suture of the gall-bladder to the abdominal wall, excluding the peritonæum for danger of septic influence, fixing the gall-bladder, and

providing for the subsequent escape of its contents by a fistulous track, is a step in the technique, with its own technical peculiarities, of such importance that I have dignified it by name of "CHOLOCYSTORRHAPHY."

The application of the principles involved will be developed without discussion in the account of the following case:—

Frau B., a wizened, brown-skinned, little German woman, 50 years old, is the mother of a number of children, and aside from a single attack of jaundice when 30 years of age, enjoyed good health up to twelve years ago, when she lay many weeks abed with a severe febrile attack diagnosed as typhoid fever. She noticed at the same time the appearance of a well-defined tumor in the right hypochondrium. Since this time she has always been a sufferer with abdominal pains, indigestion, and constipation. The pains, although not located in any particular spot, were very definitely referred as arising from the right side.

She suffered from menorrhagia two years ago, for which I was called in consultation by Dr. A. K. Minich, a year ago. After dilatation and curetting and a course of arsenic prescriptions by Dr. Minich, this disappeared, and she improved very markedly in every way.

Last January (1889) I was again called in consultation by Dr. Wintter to consider the nature of her abdominal complaint.

The lobes of a distinctly enlarged liver, also displaced downwards, 10 cm. below normal, with a gall-bladder greatly distended, elastic, and projecting far beyond its fissure, were easily detected, and the diagnosis of obstructed gall-bladder made.

I operated on the 28th of January, in the presence of Dr. Wintter, assisted by Dr. Hunter Robb. As the liver was freely movable, and the gall-bladder lay 3 cm. to the right and 4 cm. above the naval, an incision 4 cm. long was made in the linea alba. It was found to be a large, tense cyst about 13 cm. in length. Upon palpating the rest of the abdominal viscera through the opening, I found extensive mesenteric, small intestinal and colonic adhesions, made up partly of the union of broad surfaces and partly of sharp bands from 4 or 5 to 10 cm. in length. These were all carefully separated and broken up by the fingers used as a wedge between the broad adhesions, and bringing the sharp bands into view when they were cut. The oozing which followed this separation was but slight. The next step was to suture the gall-bladder to the abdominal wall, so as to expose a part of its surface for subsequent incision. This was done by means of a series of fine interrupted silk sutures about an eighth of an inch apart, introduced so as to catch up the serous and subserous coats of the bladder and the visceral peritonæum.

The completion of the operation left a small wound, at the floor of which lay exposed a part of the gall-bladder, 3 cm. by 1½. The whole operation lasted to completion ten minutes. Iodoform gauze was placed in the wound, and absorbent cotton and bandage over the whole. On the third day the dressing was removed and the exposed bladder opened in its length by Paquelin's cautery knife. About 300 gr. of clear, sticky fluid like synovia escaped. On the fifth day I removed one hundred and six gall-stones of varying size by means of a small pair of forceps. Three days after forty more were removed, and on the eleventh day forty-two stones more appeared. A stillicidium of fluid commenced with the opening of the bladder, and lasted eighteen days, when the wound closed. The length of the gall-bladder measured by a sound was 11½ cm. On the twelfth day she sat up, and on the twenty-sixth day she went home. The relief following the operation was perfect. She had no more pain, recovered her appetite, and became bright, and cheerful in disposition.

Dr. H. M. Weeks reported

A CASE OF OVARIOTOMY.

In October, 1888, a case for operation was placed in my charge. The history of the case was briefly as follows: Less than a year (about ten months, as near as the patient could remember), before

I saw the patient, she was seized with a sharp pain in the right ovarian region. A physician was called, who diagnosed an acute attack of inflammation of the ovary. Anodynes were freely given, hypodermically and by the mouth, and a blister applied over the seat of pain. The pain still continuing, and the patient growing weak and losing flesh, the physician in attendance was dismissed and another called, who diagnosed an abscess, and treated the case for some time with anodynes, counter-irritation, and fomentation. Then was discovered a slight enlargement of the abdomen, which seemed to confirm the medical man in his opinion of an abscess being present, and he decided to await developments. In the meantime, the case passed into still other hands, and this time the physician, upon his first examination, found a tumor in the pelvis, which, however, he was never able afterwards to find. The pain gradually grew less and though the patient was weak and did not regain her flesh nor her usual health, she resumed her household duties, noticing more and more the enlargement of her abdomen upon the right side.

About three months before I saw her she was taken with symptoms upon the left side identical with those which initiated the trouble upon the right side. Dr. H. W. Coleman was now called, and after a careful examination, diagnosed an ovarian cystoma of the right side, and commencing trouble of the same kind upon the left side. The doctor advised an operation, and requested that I be called to the case.

Upon examination, I found a large tumor high up in the right lumbar region, not very freely movable, and from the vagina it could not be reached by bimanual examination with as much force as was bearable by the patient. Upon the opposite side there could be plainly mapped out an enlargement in the iliac region about the size of a cocoanut. By the vagina this mass was found to be firmly adherent, and filling the entire left side of the pelvis, pushing the uterus forward to the right of the median line. I gave it as my opinion that there was, on the right side, an ovarian tumor with long pedicle, and adherent to the abdominal walls and contents above, which accounted for the want of mobility, and also for the height of the tumor in the cavity, and that the mass occupying the left side of the pelvis was a cyst of the left ovary bound by pelvic adhesions. As the patient was in a fair condition as regarded her general health, and was anxious to be relieved of her suffering, I advised an operation as soon as practicable.

The patient was placed in my private hospital, prepared for an operation, and upon the 19th of October, assisted by Dr. Charles B. Penrose, of Philadelphia, I opened the abdomen by an incision about three inches in length between the pubis and the the umbilicus in the median line. There was a considerable amount of dark fluid escaped from the incision upon opening the peritonæum, and after separating the omentum, which was adherent to the pubis, I began to release and deliver the mass upon the left side, which was found to consist of a multilocular, papillomatous, ovarian cyst, firmly bound by adhesions to uterus, bowels, and pelvic walls, and also an intra-ligamentous cyst. Everything was firmly adherent, and the bleeding so free from some of the points of adhesion as to require ligatures to be used freely, styptics failing to control hemorrhage. It was found necessary to increase the size of the incision to about five inches, in order to complete the enucleation and deliver the mass, a portion of which could not be separated from the pelvic wall, and was therefore left behind. I now turned my attention to the large cyst of the opposite side,—a multilocular ovarian cystoma. This was found adherent to the abdominal wall, the colon, and everything with which it had come in contact. Adhesions were separated as rapidly as possible, the trocar introduced, and as much fluid as possible evacuated, when the hand was passed in and the smaller cysts broken up, and the whole mass brought out through the incision. A ligature was thrown around

the pedicle, which was about five inches in length, and after cutting away the mass the stump was dropped back. The abdominal cavity was thoroughly cleansed by irrigation, a large amount of water being left in the cavity on account of the weak condition of the patient, due to shock; a drainage-tube was placed in the incision, and the abdomen closed in the usual manner. The patient was placed in bed greatly exhausted and profoundly shocked, from which she rallied in about twelve hours, and went forward to recovery without an unpleasant symptom. The patient and her family were informed hat there would probably be a return of the trouble, owing to the nature of the tumors removed, and in lieu of the fact that a portion of one of the cysts could not be gotten entirely away.

The latter part of March last, five months after the operation, the patient called at my office to consult me about a pain in the left side, and about an enlargement of that side.

Upon examination I found a tumor about the size of a fœtal head occupying the left side of the pelvis, firmly adherent. I advised another operation, at the same time explaining to the patient and the family that it might not be possible to remove the growth, and if so, only an exploratory operation would be done, but if possible the tumor would be removed; with this understanding an operation was consented to. The patient subsequently passed into the hands of Dr. J. M. Baldy, who operated.

There were some points in connection with the case that may be of interest, which were not known to me at the time of taking charge of the case, nor until after she was discharged from my care. The patient had lost a sister, an aunt, and a cousin all with cancer.

Another point in the case was the age of the patient. She gave me her age as 49 at the time of the operation, and when she came to me again in March, she told me she was 50. In this connection, it may be proper for me to anticipate Dr. Baldy somewhat, and to state that the patient died of cerebral apoplexy on the 29th day of April, and her age was published as 52 years; but I am informed by very good authority that it was, and always had been, a propropensity of this woman to make herself as young as possible, and that she was in reality not a day less than 60 years of age.

Dr. J. M. Baldy reported the following history:—

The subsequent history of Dr. Week's case is reported for two reasons,—because of the unique ending of the case, and for the reason that we have need of the history of deaths more than recoveries, at present.

I saw this patient some three or four months after the first operation, and found the conditions present very much as related by Dr. Weeks. At the operation which followed, the old incision was found perfectly united. No adhesions to the abdominal wall by intestines or omentum. Tumor as large as child's head and filling the pelvis. The intestines and omentum were adherent over its entire upper surface, excepting at one point as large as a small orange. The cyst was undoubtedly intra-ligamentous and not simply bound down by adhesions. It was composed of smaller cysts, many of which were ruptured in the enucleation. It was too low down and two universally adherent to allow of an attempt at tapping it, and the rupture was unavoidable. It was altogether the most difficult and trying operation I have ever attempted. After its removal there was but one point which was not ragged, showing the condition of universal adhesion. There was no pedicle, and only at two points were adhesions tied. These points might have been dealt with differently, but were tied to spare time. Patches of intestines as large as one's hand were denuded of their peritoneal covering. There was considerable oozing when the abdomen was closed, but as the patient was doing badly under ether, the drainage-tube was trusted to for controlling this, and in a few hours it had all stopped. Irrigation with simple hot water was freely used. She was in bed within the hour, and soon reacted from the anæsthetic. For five or six days she progressed splendidly, and would probably have

continued to do so, but the drainage was prolonged beyond all use and the track became infected. There was a quick rise of pulse and temperature, which subsided as quickly within twenty hours on the discharge of a few spoonfuls of pus. She then improved steadily and was considered almost well; in fact, was to have gone home the next day. On the seventeenth day she was feeling better than she had for years, had slept soundly the night before, and had eaten a large breakfast with relish. She was laughing and joking with her nurse, when she suddenly gave a start, became unconscious, and was dead within twenty minutes.

At both operations she had behaved badly under the anæsthetics. The cyst was of a malignant, papillomatous character.

The post-mortem examination revealed the following: union along line of incision perfect; omentum adherent to abdominal walls to the left for an inch; to the right, the intestines were adherent over the brim of the pelvis and to the drainage track; at the bottom of the drainage-tube was a small quantity of pus. Pelvis perfectly smooth and clean. Spleen normal. Liver normal. Kidneys normal. Heart fatty, infiltrated. The right side dilated with a chicken-fat clot; left side, the walls were thinned. The mitral valves had undergone calcareous degeneration. *Brain:* about two ounces of fluid in the arachnoid cavity; cerebellum soft. In the fourth ventricle a small vessel was found ruptured, and the ventricle was filled with a blood-clot. A piece of calcareous plate was here found.

This clearly indicates the manner of death. It is possible that the action of the heart under the anæsthetic may have loosened the calcareous plate on the mitral valve and thus been the cause of death some time sooner than would otherwise have occurred. In no other way can the death be attributed to the operation. It is unfortunate that the accident did not delay a few days longer, but then I suppose the friends would have said we moved her too soon.

It is a matter of surprise to me that there were no more adhesions than the autopsy disclosed, the denuded surfaces had been so extensive. Had the trouble with the drainage-tube not occurred, the patient would have been home when she died; but there are some things we cannot control, and the unnecessarily long drainage here is a case in point.

Dr. J. B. Deaver exhibited a

LARGE MULTILOCULAR OVARIAN CYST.

The patient was from Maryland. There was considerable ascitic fluid. There was a large tumor on the left side containing colloid material. The woman had suffered considerable pain. There were also papillomatous contents, and malignancy was suspected. A smaller tumor was removed from the right side.

Dr. M. Price exhibited

A SUBSTITUTE FOR SENN'S PLATES

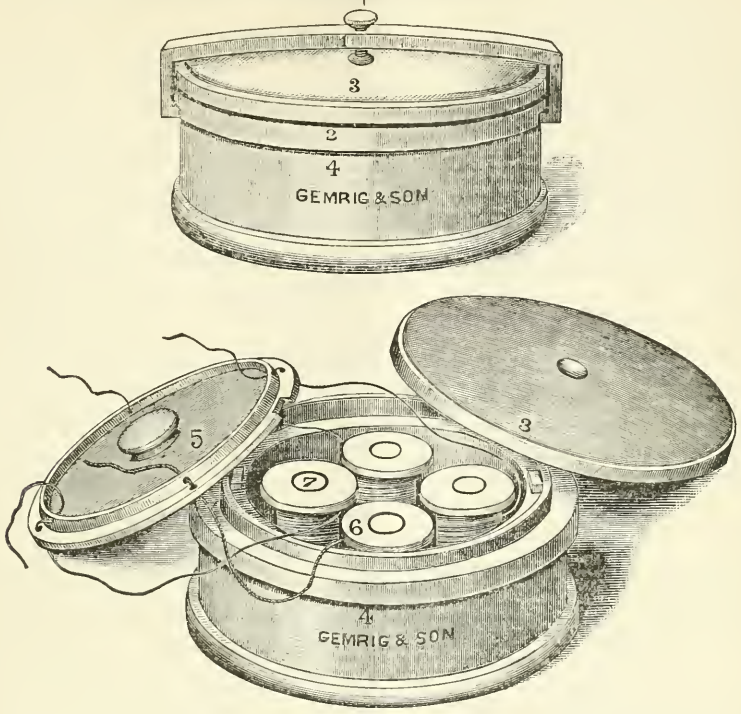
This is simply a transverse section of the femur of a beef, which has been decalcified. It is used in the same way as Senn's plates. The openings in the transverse section are across instead of on the plane of the surface of the bone, and absorption will take place more rapidly. The advantage over the Abbe ring is that this holds its form, while the catgut ring is liable to twist and give some trouble in its application. These plates are being used by Dr. Deaver and my brother upon some dogs, and later they will make a report of their observations.

Dr. H. M. Weeks exhibited

AN ANTISEPTIC LIGATURE BOX.

This box is presented to the profession for preserving and carrying ligatures that have been prepared and rendered aseptic or antiseptic, enabling the operator to cut his ligatures and suture, at the time of operating, without danger of soiling or infecting the portion not required for immediate use. It is made of a fine quality of earthenware, thus securing strength and durability; at the same time it is light, compact, ornamental; and last, but not least, it can

be furnished at at a price that will enable every one practising surgery to provide himself with one or more. The box can be had in any color desired, or with any decoration the consumer may wish.



The accompanying cut represents the different parts as follows:

The box is round, four inches in diameter and two inches high, with an outside cover, No. 3, that is held in position by a neat clamp, No. 1, which, when adjusted, is prevented from slipping by a slot on either side of the band or flange at the top of the box, the screw holding the cover tightly down upon the rubber washer, No. 3, which encircles the top, and renders the box absolutely air and fluid tight, so that the ligatures can be carried constantly in any solution desired without any danger of leakage.

The inner cover, No. 4, is a flat disk with a slot cut in the edge to allow it to be placed in position, and held by two small catches placed on opposite sides of the box; the small knob in the centre serves to turn and place and remove the cover. There are four holes perforating this cover for the four sizes of silk generally used, and half an inch from the edge of these is a raised band, also perforated, for the silk to pass, thus making it impossible for the end of the ligature to drop back into the box when cut. This cover rests upon a ledge, and is left in place except when necessary to fill the reels or spools with silk, or the box with solution.

The reels or spools, No. 6, four in number, stand upright, and are held in position by sperate spindles, No. 7. The whole box is highly glazed; there is no metal nor anything that can be acted upon by any solutions, and the material from which it is made can be subjected to any amount of heat, either dry or by boiling. It can be taken apart in a very few seconds, and every part thoroughly cleansed.

Should any of the parts break, they can be replaced, as they are interchangeable.

They may be obtained from J. H. Gemrig & Son, 109 South Eighth street, Philadelphia.

J. M. Baldy, *Secretary.*

328 South Seventeenth Street.

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BALTIMORE, SEPTEMBER 21, 1889.

Editorial.

ASEPSIS IN MIDWIFERY.—The obstetrician in private practice shrinks from the extreme antiseptic methods used in certain lying-in-hospitals. He cannot bring himself to irrigate the genital canal with antiseptic solutions before and after normal labor. He never has been and never will be an extremist in these matters. Asepsis however, he is beginning to appreciate. This will be a strong point with the obstetrician of the future.

"Aseptic" forceps are already coming into use, and doubtless all obstetric instruments will hereafter be made in such a way that they can be readily and thoroughly cleaned. They will be constructed of metal throughout, and will be plated with nickel or some other material which will give a smooth, absolutely non-porous surface. No crannies nor dirt-holes will be permitted. Even hard-rubber will be rejected on account of its porous structure.

Before they are applied, instruments will be in every case laid for a considerable time in a strong disinfecting solution and after each operation they will be carefully cleaned and disinfected.

The obstetrician will be very careful that his person and clothing are clean and free from infectious material. The nails, hands and forearms will be scrubbed before he touches the patient, and he will examine and operate either in his shirt-sleeves or with a clean cotton or rubber cover about him.

Great advances will be made in the training and selection of monthly nurses. They will be instructed in the theory and practice of cleanliness (known scientifically as asepsis.). They will be required to adopt the same rules in regard to person and clothing as are followed by the obstetrician. It will be part of the nurse's duty to see that the patient is properly bathed, and that the external genital parts are properly washed and disinfected before the second stage of labor and before any digital examinations are made. After labor, she will see to it that the patient and her clothing are kept perfectly clean. Friends or members of the family will not be allowed to visit the patient unless they are free from infectious matter. With these precautions child-bed fever will be almost unknown.

The "Annales de la Tuberculose" is the name of a new journal recently established in Paris. It is to be published bi-monthly, and, as its name implies, will be devoted to a study of tuberculosis in all its aspects.

Correspondence.

A SUMMER TRIP.

Editor Maryland Medical Journal:

Dear Sir:—In my wanderings this summer I passed a short time in several of our important cities, and although bent only upon pleasure I occasionally glanced at business in the way of seeing hospitals and dispensaries. This, however, amounted to little, owing in part to the absence of the principal men from the city, and also to my warrantable laziness during the warm weather.

I was in Boston, New York, Philadelphia and Pittsburgh, and failure to find my friends and acquaintances convinced me that these physicians were very fond of their well-earned holiday.

In New York I summoned up energy to visit the Polyclinic and Post-Graduate schools, and although there was no very active work going on at that time, still the facilities for work even at that heated period showed that a hard worker could find active employment in studying the excellent material under the instructors even during the hottest months. In Pittsburgh I had a very pleasant conversation with one of the editors of the *Pittsburgh Medical Review.*

Having a faint idea of having heard of a garbage crematory in Pittsburgh, I determined to make a study in sanitary science and look it up. Without much trouble I did find that both Pittsburgh and Allegheny had a garbage crematory, in the workings of which I took especial interest, particularly in the absence of other amusement. The one which I inspected at Allegheny was patented by a Mr. Rider, I believe, of Pittsburgh. As I knew that the disposal of garbage, night soil and slaughter-house refuse was a problem which had not been satisfactorily solved in Baltimore, I determined to thoroughly inspect this Rider furnace. Accordingly, furnished with a pass from the secretary of the company, I went to the furnace and had its mechanism clearly explained to me. As it would hardly interest your readers to hear details, and as you might suspect me of being an interested stockholder, (I wish I were), I will forbear, and simply state results.

While there I saw burned a large number of barrels of decomposed fruit from a packing house. These were dumped into the many openings on the top of the furnace and falling, as they must of necessity do, into a conical pile, formed themselves into a succession of mounds of large area of surface exposed to an enormous draught through the grate-bars below. The water is gradually vaporized, and by the almost perfect combustion all gases are burned before they reach the tall chimney at the end of the furnace. As a result the most putrid, rotten material imaginable is entirely destroyed without any odor, as people near the furnace testify; and indeed I myself failed to detect the slightest foul smell from the burning mass, although I walked up on top of the furnace. When the burning is finished, the ashes, which have no bad odor, are raked out, put into barrels and sold as fertilizers.

I must confess I wished myself a capitalist at that moment. Here is a furnace which destroys all refuse, can furnish steam power to a large factory with the use of only a trifling amount of coal to start the fire, and lastly it turns out an excellent fertilizer which can be sold a moderate price. When I have seen in Baltimore the garbage carted far out into the county or dumped on vacant lots even in the city limits, I feel as if any method would improve the health of the city and decrease the already small mortality.

The Western Pennsylvania Medical School begins its session next week.

It is stated on what seems to be good authority that food preparations for infants to the amount of $10,000,000 are annually sold in the United States. According to one of the speakers at the recent meeting of the Association for the Advancement of Science, "most of these products are unwholesome," and the Government was urged to take some action.

Miscellany.

THE TREATMEET OF HYDATID DISEASE OF THE LIVER.—Dr. Davies Thomas, whose contributions to the study of hydatid disease have been numerous and important, sums up the results of his researches (*Australian Medical Journal*, June 15th) as follows: That there is reason to believe that the tapping operations fail to cure the patient in fully 40 per cent. (or more) of the cases in which they have been tried; and that, taking aspiratory puncture and ordinary tapping operations together, the deaths amounted to nearly 18 per cent., but the mortality following aspiratory puncture was only about half that of punctures with an ordinary fine trocar. Speaking generally, the greater the number of punctures required in a given case, the smaller is the probability of cure by tapping alone. Simple puncture, though generally devoid of risk, has been known to cause sudden death, sometimes from shock, sometimes, in the case of pulmonary hydatids, from suffocation by the fluid contents of the bladder-worm. As to parasiticide injections and the use of electrolysis, there is no evidence in their favour that does not apply to simple puncture, whilst each has drawbacks of its own. The mortality of the various forms of radical operation is given as follows: Caustics, 33·68 per cent.; canule-à-demure, 26·66 per cent.; Simon's method, 48·0 per cent.; Volkmann's method, 19·02 per cent; Lindemann's method (abdominal section), 10·29 per cent., and ditto (thoracic incisions) 29·41 per cent. From which it appears that that abdominal section yields an even lower mortality than puncture of the cyst.—*Lancet.*

LARYNGEAL ULCERS IN TYPHOID FEVER.— Dr. Antonoff publishes in the *Ejenedélnaya Klinicheskaya Gazeta* the result of a series of histological examinations of laryngeal ulcers occurring in typhoid fever. The earliest change, he says, is a hyaline degeneration of the membrana propria of the capillaries and smaller arteries, and in places of the connective tissue of the mucous membrane. The epithelium dies from coagulative necrosis. The reticulum formed, becomes the seat of micrococci. There is no inflammatory infiltration in the broken-down tissue, but the process takes place on the border between healthy and morbid tissue. If the ulceration goes deeper, perichondritis with formation of pus, phlegmonous inflammation of the soft parts, and loosening of the fibres of the cartilage takes place.—*Lancet.*

TREATMENT OF CORYZA. — Another "cure" for coryza is added to the already large list. We quote it from the *Centralb. für die Gesamt. Therap.*, No. 7, 1889:

Hydrochlorate of cocoaine -	1 part.
Phenic acid	1 "
Menthol -	1 "
Eugenol	2 "
Lanolin	15 "

—M.

Sig.—To be applied to the mucous membrane of the nose by means of a cotton pellet.—*Med. News*

TREATMENT OF CHRONIC CYSTITIS.—Chronic cystitis has been treated, with great success, by Dr. V. Mosetig-Moorhof, of Vienna, with iodoform injections. His method of treatment is as follows:

The bladder having been previously irrigated with moderately hot water, an injection of the following emulsion should be made:

℞.—Iodoform . . .	50 parts.
Glycerine . . .	40 "
Distilled water .	10 "
Tragacanth gum .	½ part.—M.

Sig.—One tablespoonful to a pint ot lukewarm water, well stirred, for one injection. Injections should be made every third day.— *Wiener med. Presse*, No. 29, 1889.

WHAT HAS HE WRITTEN?—Sir James Grant, in his address to the American Medical Association, related the story of a Western practitioner who asked a certain Paris professor if he knew

a doctor of his State, who enjoyed a large practice. The teacher replied that he did not, but asked, "What has he written?" This question can be made the text for a most valuable sermon to the profession of this section of our country. We do not wish to be considered impertinent if we ask of our confrères, Have you lately done or written anything that will add to your reputation abroad or advanced particularly the value of the profession at home? Many of us complain that we lack opportunity for investigation. This is an error which cannot be too severely condemned. A student can find the opportunity to do a good job with indifferent tools. Those who are acquainted with the leading men and schools of Europe are well aware that small clinics in small towns have made some men famous. The hospitals of Heidelberg do not compare in size to those of some of the larger cities of Germany, yet men find opportunities there for study and investigation the results of which have been of inestimable value. Within fifty miles of this city there has been lately an epidemic of cerebro-spinal meningitis which is probably unknown to the majority of our readers; should such a dreadful calamity befall a small canton in Switzerland or a burg in Germany, competent students would so thoroughly investigate it and find opportunity and material for monographs on that disease which would justify the admiration of a thousand men and be published in a dozen languages. How did Niemeyer find the opportunity to collect the material for a book which, when it was issued, condemned every other practice of medicine in Germany to a back seat? Billroth found the material to write his "Surgical Pathology" in the pathological institute at six o'clock in the mornings. It cannot be denied that the profession of America is doing a great deal to solve the difficult problem, disease; we, too, could add our mite if we would. A level head, a good microscope, and a few hours spent weekly in the investigation of a single disease will find the opportunity to write a short paper which might force the attention of the learned and dignify the pages of the great metropolitan medical journals of the world.—*Kansas City Med. Review.*

Tape-Worm in Children.—The following prescriptions will, according to the *Lyon Médical*, May 12, 1889, be found most effectual in cases of tape-worm occurring in children. Both are very agreeable to the taste, and are, therefore, easily administered:

I.

℞ Oleoresin of aspidium, 3 to 3 ijss;
Peppermint water, f ℥ ss;
Essence of anise, gtt. x;
Chamomile water, f ℥ j;
Syrup of sugar, f ʒ v;
Syrup of bitter orange-rind, f ʒ v.

II.

℞ Oleoresin of aspidium, ʒ j;
Calomel, 6 gr.;
Sugar, ʒ ij;
Gelatin, q. s.

Make into the consistency of jelly and administer as a confection.—*Arch. of Pedratrics.*

Jugulating Pneumonia.—At the rerecent Therapeutical Congress, in Paris, M. Petrescii, of Bukharest, claimed that pneumonia could be aborted in its early stages by giving large doses of digitalis, *e. g.*, 4 to 8 grammes (ʒ j. to ʒ ij.) of the leaves of infusion, daily.—*N. Y. Med. Record.*

Billroth on the Dangers of Carbolic Acid.—The following letter of Dr. Th. Billroth, of Vienna, has been published: "I have lately seen four cases in which fingers which had suffered insignificant injury became gangrenous through the uncalled-for application of carbolic acid. Carbolic acid is now much less used in surgery than formerly; we have only gradually become acquainted with its dangers. The acid may not only cause inflammation and gangrene, but also blood poisoning, and

so may even prove fatal. It is useful only in the hands of a skilful surgeon, and ought never to be used without his advice. The best lotion for recent injuries is the ordinary lead lotion, which can be bought of any chemist's. The best antidote in carbolic acid poisoning is soap, which should be taken immediately and repeatedly until all symptoms of poisoning have disappeared."—*Lancet.*

International Medical Congress.—A further announcement concerning the Congress has been made. Membership is limited to physicians and surgeons in regular standing, The registration fee is twenty marks, and each member will receive a copy of the Transactions. The purpose of the Congress is purely scientific, and its business will be transacted in sections. In the first sittings of the various sections a president and a sufficient number of honorary presidents will be elected, the latter to preside alternately with the former. Owing to the difference of languages, a sufficient number of secretaries will be appointed from among the foreign members. The general sittings are intended for debates regarding the work and general relations of the Congress, and for addresses and communications of general interest. Such addresses are to be delivered only on invitation of the Committee of Organization. Proposals relating to the work of the Congress must be made to the said committee before July 1, 1890. The committee will decide whether they shall be adopted or not. All discourses and communications in the general and in the sectional meetings must be delivered to the secretaries in writing before the close of the sitting. The Editing Committee will decide whether and in what compass these writings are to be printed in the Transaction.. The official languages used at all meetings will be German, English and French. The by-laws and programmes will be printed in three languages. Introductory discourses in the sections are to be limited, as a rule, to twenty minutes; in discussion only ten minutes are allowed to each speaker. Students of medicine and other persons of both sexes who are not physicians, but feel interested in the debates, may attend the sittings on permission being obtained from the president.—*New York Medical Record.*

The Curette and Paralysis of the Uterus.—Curetting the uterine cavity is an operation not unpopular with many gynæcologists, and, therefore, frequently performed. It is not without danger, and requires several precautions; above all, strict precautions against sepsis. Operators have occasionally noted during the scraping process that the curette seems suddenly to go through into a space, as though it had perforated the uterine wall. Doléris has described this phenomenon, which he has found to arise from total paralysis of the uterus, due to the "minor" operation in question, Dr. Geijl, of Utrecht, confirms this theory, having observed the phenomenon in five cases. He also noted complete paralysis of the vesical walls after removal of two tumors from the bladder, and injection of boracic acid. In the case of the uterus, the curette can be passed back till it strikes against the posterior wall of the uterus, and, on introduction of the finger, the paralysed organ feels not like a flaccid bag, but rather like a distended sac. Fluids and air injected into the uterine cavity under these circumstances apparently resisted the pressure of the abdominal muscles. The question, discussed in the *Archiv für Gynäkologie*, vol. xxxi, part 3, is of high importance, and demands further investigation.—*Brit. Med. Journal.*

Hæmorrhage from the Umbilical Cord.—Dr. Auvard has recently described an instructive case of this accident, which occurred six hours after birth in a private case. The cord was carefully tied one inch and a-half from the umbilicus; it was thick and contained much Whartonian jelly. Four hours

later, Dr. Auvard visited the mother, who was thirty-five years old and had borne two other children. Looking at the infant he noticed that it was rather pale but sleeping comfortably. He was sent for an hour and a-half later, as the nurse had found the child's binder soaked with blood, and its extremities were cold. The cord was immediately tied again and the child kept warm. On Dr. Auvard's arrival he found that drops of blood kept issuing from the stump of the cord, notwithstanding the new ligature. He tied the three umbilical vessels separately; the hæmorrhage then ceased, and the infant, a well-nourished female, recovered perfectly.—*British Med. Journal.*

Effects of Alcohol in Moderate Quantity.—Dr. Mogilianski (*St. Petersburg Dissertations,* 1888–9, No. 87) has investigated, in a painstaking manner, the effects of alcohol as a beverage on persons who are and who are not accustomed to it. He selected as his subjects nineteen healthy young men, mostly students, and estimated the constituents of their food and also their urine and fæces for several days with and without alcohol. Ha found that the temporary use of moderate quantities of alcohol in those accustomed to it improved the appetite and increased the assimilation of nitrogenous principles; but that in persons not habituated to its use the assimilation of nitrogen decreased. Alcohol appeared to diminish the assimilation of fat. The destruction of the albuminoids in the body always decreased with moderate doses of alcohol and frequently even with small ones. No diuretic action was observed; indeed, the amount of urine passed by the subjects while they were taking alcohol was less than when they did not take it. The quantity of alcohol given per diem—usually in the form of vodka—varied from 60 to 140 cubic centimetres,

The New Volume of the Index-Catalogue.—The tenth volume of this great work takes the vocabulary from "O" to "Pfutsch." It brings the number of author-titles of volumes to 54,298, and of pamphlets to 93,002 and the numbes of subject-titles of books to 107,419, and of journal articles to 336,772. It continues the work with the same scrupulous carefulness that has been apparent inall the preceeding volumes. A note-worthy article is the one headed "Periodicals" with references also to "Bibliography" and its subheadings, to "Journals" and to "Journalism." It is a list of the periodicals more or less complete files of which are contained in the Library of the Surgeon-General's Office, and includes 211 pages, The exact titles are given, with their changes from time to time, the names of the editors, and the places and forms of publication. Such a list is of incalculable value, especially to those engaged in editorial work.—*N. Y. Med. Journal.*

Anti-Tobacco Congress.—The first meeting of the International Congress against the Abuse of Tobacco took place recently, when M. Renaudin, formerly army veterinary surgeon, was elected honorary president. He is one hundred and four years or age, having been born in 1785, and was introduced as a non-smoker. Dr. Dujardin-Beaumetz, of the Academy of Medicine of Paris and hospital physician, was elected president, and Dr. Drysdale, of London, was named one of the vice-presidents. As soon as the bureau was formed, M. Ortolan, a retired naval officer, opened the meeting by a few remarks on the history of tobacco, its introduction into Europe, its properties, and its toxic principles. He said that the proportion of nicotine diminished when the stalks of the tobacco plant were placed very near each other, and when the leaves were numerous and situated very low on the stem. This is why the Germans, who smoke a good deal, are less affected, as in that country the culture of tobacco is free, whereas in France it is under strict regulations, and the number of leaves per plant is limited. French tobacco contains as much as 6

per cent. of nicotine. M. Pradel cited numerous cases of abortion produced among women employed in the tobacco manufactories. Dr. Dujardin-Beaumetz observed that what is referred to here is only that intoxication which is effected through the skin, and that the inconveniences pointed out refer only to women who continually manipulate tobacco, and not to women who smoke. These latter only experience the well-known ill effects, such as troubles of digestion, smoker's sore throat, &c. M. Marambert endeavoured to prove by statistics that the abuse of tobacco is one of the causes of the lowering of public morality. He demonstrated that all criminal, gamblers, dissipated persons, and bigamists smoke, and have smoked from childhood. This is certainly trying to prove too much, and consequently will probably serve to do more harm than good to the objects of the Congress. The meetings of the International Congress have been brought to a close, with various recommendations, among which may be mentioned the promulgation of a law interdicting minors under the age of sixteen years from making use of tobacco in any form.—*Lancet*.

Medical Items.

It is announced that Dr. Lustgarten, of Vienna, has settled in New York.

Dr. E. Molhorn, of New Chester, one of the best known and highly respected physicians of Gettysburg is dead.

Dr. H. P.C.Wilson presided at the annual meeting of the American Gynecological Society held in Boston this week.

The Southern Surgical and Gynecological Association will be he'd in Nashville, Tenn., November 12th, 13th and 14th, 1889

The Atlanta *Medical and Surgical Journal* is to be under the management hereafter of Dr. F. W. McRae.

The American Society of Microscopists held their twelfth annual meeting at Buffalo during the third week in August.

Dr. A. König, of Berlin, has been promoted to the rank of Extraordinary Professor of Physics.

Dr. Rudolph Chrobak has been promoted to the second chair of Obstetrics, with charge of the second Obstetric clinic at Vienna.

The opposition of the Swiss government towards the English physicians stopping or traveling in Switzerland is producing quite a stir in England.

The Second Italian Congress of Medicine will be held in Rome on October 15th to 17th. The chief subjects for discussion will be gout, nephritis and malaria.

Dr. Howell T. Pershing, of New York, has been appointed Lecturer on Chemistry and Histology in the Gross Medical College, of Denver, Colorado.

Dr. Charles Cary, Professor of Anatomy in the University of Buffalo, has been transferred to the chair of Materia Medica, recently made vacant by the resignation of Dr. E. V. Stoddard.

The Cambridge, Mass., Hospital is made residuary legatee under the will of Mary R. Popkin, of Cambridge, niece of Dr. Popkin, who was for many years a professor in Harvard College.

Among the list of those present at the meeting of the British Medical Association at Leeds, are the names of Drs. J, F. Perkins and H. Harlan. The latter has returned to this country.

The death of Dr. Böttcher, Professor of Pathological Anatomy in Dorpat, and formerly co-editor of the *St. Petersburger Medicinishe Wochenschrift*, at the age of fifty-seven, is announced.

The Detroit Academy of Medicine closed its first fifth of a century of its existence September 10, 1889. The occasion

was celebrated by a meeting of the Academy at the house of the President, Dr. Leartus Connor.

An apprentice boy on the United States training ship New Hampshire, at Newport, died Sept. 1, of typhoid fever. Physicians inspected the vessel and found that it was damp and that deposits from the water-closets were exposed at low water.

Dr. Rudolph Ritter Jaksch von Wartenhorst, Extraordinary Professor of Children's Diseases in the University of Graz, has been appointed Professor of Special Medical Pathology and Therapeutics, with charge of the Second Medical Clinic, at the German University at Prague.

With the view of encouraging the multiplication of the French nation, the Chamber of Deputies have adopted a proposition made by Dr. Javal to the effect that fathers or mothers of seven children should be exempted from personal or house taxes.

The reports in a recent issue of the New York *Sun* that the Johns Hopkins University was ruined are, of course, untrue. The emergency fund together with Mr. McCoy's bequest will support it for some time to come, meanwhtle bequests and gifts from philanthropic New Yorkers will not probably be refused.

The *Riforma Medica*, Aug. 3, 1889, in noticing the "International Congress on Hypnotism," recently held in Paris, points a little well-time ridicule at the present rage for congresses on special subjects. It intimates that the day may come when we shall have congresses on blood-letting and clysters, and, in fact, on every medical theme.

A Parisian medical society recently appointed a committee to consider the question of a universal language of science. The report of the committee was presented in the form of three questions, upon which the society voted as follows. "Shall a universal language be adopted?" "Yes." "Ought this to be one of the dead languages?" "No." "Shall it be the French language?" "Yes."

Dr. John B. Roberts, Professor of Surgery in the Philadelphia Polyclinic, has been elected Professor of Surgery in the Woman's Medical College of Pennsylvania. Dr. Roberts has long been known as a zealous advocate of the admission into the profession of properly educated women. Both the Woman's College and Dr. Roberts are to be congratuleted on the election.

Mr. Elihu Stevens, aged 101 years and six months, the oldest man in the State of Maine, died August 11th, at Belgrade, where he was born, January 26, 1788. He was the father of twenty-two children, the most of whom are now living, and his descendants in the third, fourth and fifth generations number three hundred and twenty-six at the time of his one hundred and first birthday.

The will of Dr. Gross provides that there shall be an award of $1,000 every five years for the best assay in surgical pathology or practice, The Philadelphia Academy of Surgery will have charge of the conditions and terms of the competition. The successful competitor must be an American citizen. All essays, in the first contest, must be forwarded to the Academy before June 1, 1863.

Since the extension of the the city limits it is no uncommon occurrence for the garbage carts to dump foul loads on vacant lots within the city limits. Last week such an event was chronicled in the daily papers. It more often escapes such notice. If not for the good of the city, it is to be hoped, at least in view of the coming election, the health board will stop such proceedings.

The subject of the Astley Gooper Prize is "The Influence of Micro-organisms upon inflammation." It is open to all comers, has a value of $1,500, and will remain open until January 1, 1892. The prize will not be given for any competing essay that has more than one author. The essay must be in English or be ac-companied by an English translation, and must be sent, before the date given, to Guy's Hospital, London.

Venice, to the great satisfaction of her population, resident and migratory, is to undergo a complete sanitary rehabilitation. The works to be commenced with this object will spread over ten years, and the first provisional estimate of the outlay amounts to some four millions and a half francs. In

conjunction with this purelyhygienic undertaking, a plan for remodeling the city architecturally will also be carried out, for which a period of thirty years is computed to be necessary.

The heirs of the late M. Chevreual have presented to the Museum of Natural History his library, amounting to 10,000 volumes, as well as several manuscripts on chemistry, alchemy, &c. A pupil of M. M. Chevreul is engaged in preparing, for communication to the Academy of Sciences, a chart of colors derived from coal-tar,which are now so much employed in commerce according to the remarkable theory of the illustrious chemist.

It is said that the practice of drinking cologne is becoming very common in Europe and in this country, and as an indication of this that the sale of the perfume has increased greatly of late years. Women are more addicted to the habit than men, and a writer in the *Quarterly Journal of Inebriety* says that the presence of obscure and complex nervous disorders in a women who uses cologne externally should always suggest the possibility of its internal use.

The *Philadelphia Inquirer* has been re-examining the character of the Schuylkill River, the source of Philadelphia's water supply, and finds it to be very much contaminated almost all the way from the coal mines to the Fairmount Water Works. It describes it as a huge sewer draining an area inhabited by 250,000 people, before its waters are taken into pipes which supply 1,000,000 persons.

A call has been issued for a meeting of the physicians of ofAlabama, Georgia and Tennessee, to be held in Chattanooga on the third Tuesday in October and the following day, for the purpose of forming an association. The call is signed by committees from the Jackson County (Alabama) Medical Society, the Chattanooga (Tennessee) Medical Society, the Cleveland (Tennessee) Medical Society, the Cartersville (Georgia) Medical Society,and the Dalton (Georgia) Medical Society. The membership is to be restricted to graduates of regular medical colleges in good standing, and it is announced that papers of interest have already been promised by prominent men.

The late Dr. Joseph Rogers, of England, bequeathed £500, free of legacy duty, to trustees for the foundation of a "Rogers Prize," the dividends accruing every ten years to be awarded to the writer of the best essay on the treatment of the sick poor, and the preservation of the health of the poor, or on either of such subjects. The adjudicators to be the President of the College of the Physicians and the Master of the Apothecaries Society for the time being; or in the event of both failing to act, the Vice-Chancellor for the time being of the University of London. If at the end of any such period of ten years no such essay shall have been written, or deemed of sufficient merit, the dividends and accumulations of each period are to be applied for the benefit of the Medical Benevolent College.

Some medical students asked the mayor of New York to allow them a certain number of condemned dogs from the pound, for experimental purposes, that functionary, as the newspapers report has duly considered the request, also the protest of a certain humane person who dreads the cruelty to which the dogs might be subjected by the students, and has come to the conclusion that he will allow the students a supply of dead dogs, but no live ones. This generosity is about equal to Artemus Ward's as exemplified in his answer to a person who had asked the privilege of seeing his show without paying—"No, you can't go in wlthout paying, but you can pay without going in."

The American Public Health Association will hold its next Annual Meeting at Brooklyn, N. Y., October 22, 23, 24 25, 1889. This Association comprises over eight hundred members, all devoted, officially or otherwise, to its declared purpose—the advancement of sanitary science and the promotion of organizations and measures for the practical application of hygiene. In the furtherance of this purpose it has met annually, during the last 16 years, in different cities in the United States and Canada, and has in every instance had the effect of greatly stimulating public effort in the promotion of health and measures for its maintenance. With the hope of still further magnifying this interest and effort, it is the purpose of the Association, through its local committee, at the forthcoming meeting, to provide an exhibition of everything available adapted to the promotion of health.

Original Articles

DISTURBED EQUILIBRIUM OF THE MUSCLES OF THE EYE AS A FACTOR IN THE CAUSATION OF NERVOUS DISEASES.*

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The neurologist and the ophthalmologist have already several times joined hands in the prosecution of the work in their respective fields. Notably have they done this in the study of the relation of brain and eye diseases. They have again approached each other in following the course of those interesting nervous phenomena arising out of disturbances of the muscles of the eye.

In the former instance, the eye disease was a consecutive condition arising from lesions in the nervous system, while in the latter, the visual apparatus presents itself as the source whence the disturbance is transmitted to the nervous system.

From the time that errors of refraction and accommodation began to be studied, it became evident that their correction not only improved the defective vision, which in many instances was the sole reason why the patient applied for treatment, but also often relieved him of headaches and of a sense of fatigue while using his eyes from which he previously had suffered. While this was true of many cases, the correcting glasses, though improving the vision, often failed to afford the relief of the headache and fatigue that had been promised. This, at quite an early date, attracted attention to another factor in the visual act, the disturbed condition of which continued to harass the patient, although the refractive error had been satisfactorily compensated for.

In looking at objects at a distance beyond twenty feet, the normal, as well as the myopic eye, is in a state of rest and so also is the hypermetropic eye when its inadequate antero-posterior axis has been provided for by the proper convex lens. In all conditions of the eye, when the object is brought near, a proper convergence of the visual axes, through the effort of the internal recti muscles, becomes necessary; otherwise manifest or masked diplopia will occur. Von Graefe in this, as in many other departments of ophthalmology, was the first to show the way. He demonstrated that the troublesome symptoms of which many patients complained, were ascribable to a condition of the internal recti muscles, which rendered them only adequate to their task when taxed to a degree greatly exceeding the effort that would be required when the interni were in their normal state. This conditon be termed insufficiency of the internal recti muscles, and the discomfort which it gave rise to was known as asthenopia. The fact that the external recti muscles might occasionally become derelict, did not escape his acute observation; but he attached very little importance thereto. Indeed, he did not hesitate to risk inducing such a weakness of the external recti by tenotomy, to correct an existing insufficiency of the interni as would occasionally cause a diplopia in looking in the distance. Von Graefe's teachings in this regard, with but comparatively slight variations, remained authoritative up to a very recent date.

The new light that has been shed upon this subject has satisfactorily shown that the externi are by no means as innocent as was supposed; but, on the contrary, are more frequently to blame than the internal recti, which so long have been regarded as the chief offenders. It seems pretty well established now, that not only are the externi more frequently deficient than the interni; but when they fall short of what is demanded of them, give rise to much more serious trouble than when the interni alone are implicated. This point will be more fully considered further on. But it is not exclusively in the horizontal plane that a difficulty arises in giving the visual axes the proper direction; for an explanation of which, our attention must be directed either to

*Read before the Medical and Chirurgical Faculty.

the external or the internal recti muscles. Not seldom it can be demonstrated that the superior or inferior recti are at fault, which demands an undue effort to provide against the occurrence of a diplopia in which one image occupies a higher plane than the other, This latter anomaly, which has been the one the longest overlooked, seems to be the most important of all. It is capable of influencing faulty actions of the other muscles, of inducing more or less impairment of vision, and finally of deleteriously impressing the general nervous system.

In studying these various anomalies, we find that the muscles which fail to do their work, except when straining their power to the utmost degree, and inflicting discomfort and suffering upon the individual, are neither paralyzed nor paretic. The difficulties arise out of a disturbance of the equilibrium. Every muscle has its antagonist. When this mutual antagonism is normally balanced, the muscles which act in association are enabled to bring the visual axes in any required direction with the least expenditure of effort. On the contrary, if the balance has been disturbed, there arises a tendency to a deviation of the visual axes in a direction to where the preponderance lies. To overcome this tendency to a deviation, an additional amount of work added to that which in the normal condition would be sufficient, is entailed upon those muscles which are called into action in a given case. The muscles thus overburdened have been heretofore uniformly designated as those presenting insufficiencies. This terminology therefore indicated the result of the respective disturbance, instead of the cause from which the disturbance arose. Dr. G. T. Stevens, of New York, who has done the best work in this department, and from whose teachings I shall largely draw in this paper, has proposed a nomenclature which rests upon a more scientific basis.

The following are the terms which he uses, and which are being generally adopted:

Orthophoria—a tending of the visual lines in parallelism.

Heterophoria—a tending of the visual lines in some other way.

Esophoria—a tending of the visual lines inward.

Exophoria—a tending of the visual lines outward.

Hyperphoria (right and left)—a tending of the right or left visual line above its fellow.

Hypere-ophoria—a tendency upward and inward.

Hyperxophoria—a tendency upward and outward.

These tendencies to deviation of the visual lines may be detected in a number of ways; but for accurate results, the resort to prisms is essential.

If an object—*e. g.*, a pencil, be held before the patient, and steadily fixed by him at a distance of ten inches, and the object be moved before the face, a tremulousness of one eye will take place when an insufficiency, or rather when a tendency to a deviation is present. Further, if the patient be directed to fix his gaze at the object, and one eye be covered by a card, and carefully watched when the card is removed, a trembling of the eye having been covered may be observed. As already stated, however, the employment of prisms is indispensable to arrive at correct conclusions as to the character and degree of the trouble.

The use in these cases of prisms is based upon the observation that the muscles, in the normal state of the visual lines, are capable of overcoming them within established limits. The method of Von Graefe, which was adhered to up to nearly the present time, was to make these tests at near distances, viz.: at 18 inches with the well-known dot and line. Stevens has shown that this method of examination is sometimes misleading, and insists upon making the experiments with the object, preferably a lighted candle, to which the attention of the patient is directed, placed at a distance of 20 feet. He says that an experience of many thousand examinations leads him to believe that the standard of normal adductions should be about 8°, and that of abduction abont 50°; that is to say, that prisms of 8°

with the base inward will not produce diplopia under the correcting effect of the external recti muscles; on the other hand, prisms of 50° with base outward will be counteracted and diplopia prevented by the extra work of the internal recti muscles. This shows a marked difference in the compensating power of the internal and external recti muscles,greatly in favor of the former. When we examine the superior and inferior recti muscles in this way, we find much weaker prisms will establish a diplopia.

Von Graefe did not look for a corrective action on the part of these muscles, when prisms stronger than those of 1° were employed. Stevens gives them the credit of overcoming those of 3°. Fixing the standard of the correcting power of the respective muscles in the normal state, makes it possible when the equilibrium has been disturbed to detect the muscles at fault, and further, to estimate the degree of their inadequacy. In making these estimates, it must be borne in mind that the general condition of the patient is not without its influence. When the general health is good, marked tendencies to deviations of the visual lines may readily be overcome without causing any inconvenience, while under conditions when the general vitality is lowered, very slight abnormal tendencies may entail marked suffering. There is reason to believe that there is often a condition which reveals but a part of the disturbed equilibrium, and therefore prisms which are provided to relieve the trouble prove unavailing.

In making the tests with prisms, the condition of all the muscles should be carefully inquired into; for a faulty condition of one set may be the cause of a disturbance in another set. If, for instance, we institute a horizontal diplopia by prisms with base inward, which in the normal state ought to be overcome, we also notice that the images did not occupy the same plane, but one appears higher than the other; then we have a case of hyperphoria, or a tending of the visual lines one above the other, of which this horizontal defect may a consecutive trouble. In such a case, the prism, with its base up or down, which would make the images assume the same level, would indicate the degree of the faulty tendency. To ascertain the abducting and adducting power of the eye, prisms held horizontally with their bases in and their bases out respectively, should be used; but to corroborate the result, a prism should be held vertically. If there be no deviation horizontally, and the images are in vertical line, the one above the other, neither the internal nor the external recti muscles are at fault. If the images separate horizontally, and the right eye has previously been armed with a red glass, we can judge as to the deviating tendency from the situation of the two images. If the red light appear to the right (the right eye looking through a red glass), the external recti are insufficient; on the contrary, if the red light is seen to the left, the internal recti are insufficient. The prisms held horizontally, which brings the two images in a vertical line, designates the degree of the deviating tendency of the visual axis, either inward or outward, as the case may be. I should have to go beyond the scope of this paper to describe all the tests that may be required in the various conditions with which we may meet. Those who may specially be interested in this part of the subject, I would refer to the articles of Dr. Stevens, published in the Archives of Ophthalmology, Vol. xvi and xvii.

The most interesting part of the subject undoubtedly is the character of the nervous disturbances that are awakened by these anomalies of the ocular muscles. It has been satisfactorily demonstrated that obstinate headaches persistent pain in the back, chorea, epilepsy, insomnia, vertigo, nausea, may owe their origin to these anomalies, and are relieved when the equilibrium of the muscles are again restored. In the following language, which I quote from Stevens, it will be seen how far he goes in his arraignment: "A large class of people, who from year to year are supposed to suffer from 'malaria,' 'biliousness,' 'nervous prostration,' 'dyspepsia,' and similar neuras-

thenic conditions, are simply paying the penalty of uncorrected esophoria. The effect of this and other forms of heterophoria are frequently seen in their influence on the physical functions. Chronic constipation, dysuria and dysmenorrhœa are not infrequent results of the reflex irritation from heterophoria." The work of Dr. Stevens has been fully recognized by Ranney, in his excellent book, "Lectures on Nervous Diseases." From what he writes as to his experience, it would appear that every neurologist, to do his duty fully, ought to be somewhat of an ophthalmic surgeon.

I shall not say anything on exophoria, insufficiency of interni, upon this subject; the attention of the ophthalmologist has been fully bestowed from the time that Von Graefe first described it down to the present time. The knowledge we have gained, however, in reference to hyperphoria and esophoria mark a new era, and it is to some of the salient points connected with the subject that I now desire to draw your attention.

HYPERPHORIA.

Hyperphoria is that condition in which one visual line has a tendency to rise above the other. To maintain the visual lines on the same plane, an effort is required. This compensatory effort, which is analagous to the effort to counteract other deviating tendencies, differs from them in this that it is not so readily carried out. As a consequence thereof, there is a tendency in many cases to yield to the condition, and diplopia becomes established, and as a result, many cases show defective vision. When the refractive condition differs in the two eyes, the amblyopia will be found principally in the one in which the refraction is more unfavorable. When, however, the refraction is equal in both eyes, the visual power will usually be lowered alike in each. Another peculiarity of this form of heterophoria is the apparent deviating tendencies in other directions. Sometimes a tendency to deviate inward is noticed, and on further trial, a tendency to deviate outwards may appear. In these cases, the two latter conditions are superinduced by the hyperphoria; the hyperphoria being corrected, the other abnormal tendencies disappear. The difficulty to be overcome in many cases of hyperphoria in the ordinary way, often gives rise to a faulty position of the head. The head is carried to one side, a position which aids the sufferer to antagonize the faulty position of the visual lines; but which may cause, in time, a permanent deformity.

ESOPHORIA.

Esophoria is that condition in which the tendency appears for the visual lines to deviate inward (insufficiency of the externi). It is strange that this condition should so long have been overlooked, when we consider that it occurs much more frequently than exophoria, or insufficiency of the interni. Although exophoria is more apt to be followed by immediate effect upon the eye in the form of pain and other asthenopic symtoms, the trouble following the use of the eye at some distant point in exophoria is usually more persistent, and assumes more of a constitutional character. Esophoria is capable of inciting severe forms of neuroses, and while in the slight forms it is not as damaging to sight as hyperphoria, when it exceeds 2°, it is followed by amblyopia, as a rule.

TREATMENT OF HETEROPHORIA.

The tendencies to these various deviations of the visual lines may be benefitted by supplying the patient with the proper prisms. There are, however, many objections to prisms. They look ungainly, are often uncomfortable by their weight, and complicate matters when glasses are employed to correct errors of refraction. Tenotomies are the simplest and most effectual means by which the disturbed equilibrium can be restored. Not only is the local discomfort accompanying the visual act relieved, but epilepsy and other neuroses have been cured in this way.

The tenotomy performed for this pur-

pose differs greatly from that which is intended to relieve strabisimus. In the latter instance, the tendon is so detached that it may slip back and become fixed to a point on the sclerotica a little behind the situation of its original attachment. This is not designed, when the operation is performed to obviate the tendency of the visual lines to deviate from their normal position. Only a partial tenotomy is made in these cases, which is sufficient to restore the equilibrium of the ocular muscles, without exposing the patient to the risk of having a subsequent deviation inflicted upon him as a result of the operation.

NOTES ON THE BEDFORD MAGNESIA WATER.

BY JAS. DUDLEY MORGAN, A. B., M. D.

Assistant Surgeon to the Throat and Chest Department, Central Dispensary, Washington, D. C.

The use and results of the employment of the Bedford magnesia water have been so uniformly beneficial, both while at the spring and in my practice at Washington, that I have been temptod to put together a few notes, hoping that those patients whose ailments are peculiarly suited to its use may be given a course, and that a water so deservedly popular may become even better known among our people.

Every year we see carries thousands of our countrymen to Europe, many on pleasure bent, but the larger number seeking rest and the benefits which they hope may accrue from a visit to Carlsbad, Aix-les-Bains, Bath or some other equally noted health resort. We Americans, in our haste to find something good, often pass by things which are much better. We are somewhat disposed to underestimate the value of our watering places near home.

Take Bedford with its healing properties of mineral waters. The diseases of the stomach, liver, kidneys and bowels all seem aided in their various functions by use of the Bedford magnesia water. The spring, active in its large proportion of mineral ingredients, especially the sulphate of magnesia, (Epsom salts) brings oftentimes immediate and lasting good results to the frequenters of this resort. Dr. William Watson speaks of its being "most salutary in diseases of the stomach und intestines, in dyspeptic and hypochondriacal derangements, in hæmorrhoids and affections of the lungs dependent upon stomach or liver trouble. Dr. Church,* of Pittsburgh, who was the first to analyze the water in 1825, says: "Every one can admit that a water so highly charged with saline ingredients must produce a decided impression on the stomach and bowels. The water, I believe, passes directly into the circulating fluid, and the saline materials, mingling with those which already exist in the serum of the blood, are presented to the emunctories of the liver, kidneys and the skin to stimulate them to an excess of action."

Dr. Caspar Morris,† of Philadelphia, in an exhaustive article to the *Medical Examiner*, in 1852, on the use of the Bedford mineral spring, recommends it "especially in deranged conditions of the digestive organs, where the food is imperfectly digested and the bowels are disposed to constipation and the mind loses its natural vigor."

The first appreciable effect after imbibing freely of the magnesia water is its action upon the skin and kidneys. The salts, when absorbed into the blood, act as a diuretic, if the skin is kept cool, and as a diaphoretic if the skin be kept warm and moderate exercise be taken. The sudoriferous or sweat-glands excreting a large proportion of the aqueous and gaseous materials of the body, thereby relieve the kidneys of much work and the blood of many of its poisonous principles. Its action on the urinary organs is very soon observed. The salts, mingling with the blood-supply of the kidneys, hasten the elimination through the tubules, of the urea, urates and various toxic agents within the renal circulation.

The portal vein coming from the arteries of the intestines, stomach, spleen

*Brief tract read before Med. Faculty of Pittsburgh, 1825.

†*Med. Exam.*, Phila., 1852., vol. viii, 358-367

and pancreas contains a vast amount of excrementitious matter floating within the blood. This is delivered to the liver for purification. The cells of the bile capillaries of the liver should act upon and extract the biliary salts and eradicate the cholesterine and all such effete principles from the blood. It is here perhaps more than any place by the systematic use of the magnesia water we see and feel its lasting benefits. By the encouragement and stimulation which the hepatic cells receive, the bile is poured freely into the intestinal canal, the waste products of the blood are not allowed to stagnate and be re-absorbed within an engorged and torpid liver, the intestines take on their peristaltic movements, and the stomach, relieved of its accompanying congestion once more, craves and easily digests its food.

The magnesia water should be drunk before meals. On rising in the morning one or two glasses should be taken, followed by a brisk walk of half a mile or so; returning, another glass should be taken before breakfast, and one or two small glasses before dinner and supper. A little salt added to each glass will increase somewhat its osmotic power, and thereby sooner produce catharsis. If the temperament is of a very bilious nature, the tonge furred and constipation obstinate, a blue pill taken at night, followed in the morning with free drinking of the water, in which half teaspoonful of Epsom salts to a glass of water is dissolved, will soon bring about a better habit. The water heated seems to agree better with some delicate stomachs and enables one to take it in larger quantities. In case of rheumatism and gout complicated with kidney or heart trouble, the water should be drunk in moderation and with regularity. In these cases especially should the skin and lungs be encouraged in their function of elimination, by occasional bathing and gentle exercise. The small trace of iron which is found by analysis may cause in some few a fullness in the head. With them the use of a cholagogue now and then while drinking the water will remove any complaint.

RADICAL CURE OF FISTULA IN ANO AND HÆMORRHOIDS BY ELECTRICITY.

BY W. S. SHOTWELL, M. D.,
GRAND RAPIDS, MICH.

I would call the attention of the profession to more rapid rapid methods of curing fistula in ano and hæmorrhoids, coupled with safety and their radical extermination.

Having devoted years to this branh of the healing art, many times with tedious and unsatisfactory results, employing the much talked of Brinkerhoff and other methods, I now challenge the world to compare results with the methods I use in the cure of fistula in ano, be there one or a dozen openings. I employ an electrolytic battery of about 12 ampère power, with sufficient of the cautery element to subdue any hæmorrhage that may perchance occur. My portable battery that I take to the patient's house is about six by ten inches long and ten inches high, with two cells and built chiefly for quantity, charging it with tri-oxide of chromium and sulphuric acid. The method of procedure is this, the battery is first charged and the patient's bowels thoroughly emptied by means of an astringent injection. I then place the patient on his side and with the Shotwell rectoscope or other suitable speculum the inner opening is located, or if it be an external incomplete fistula the side opening of the rectoscope is so turned that the possible opening is in view, the patient is of course under the influence of an anæsthetic. I then straighten out the fistulous track nearest the anus with a stiff steel probe of sufficient length having an eye near its introductory end, and if the sinus does not quite open into the bowel, perforate the intervening tissue till the eye of the probe is distinctly seen in the rectoscope and leaving it there I next introduce a lance-pointed probe having also an eye near its end, about three-eights of an inch farther from the anus into the solid structure and parallel with the fistulous

track till its eye is also seen penetrating the bowel in the opening of the rectoscope, the eyes of both probes are then threaded with the opposite ends of a No. 24 platinum wire, about ten inches in length, and both probes are then withdrawn, leaving the wire *in situ* forming a loop. Both ends are now secured to an electrode, the electric current turned on and the loop drawn through the partition, its passage destroying the membrane which lines the fistulous track. No dressing is necessary, as it is well known that no wound heals more kindly than those made by a battery; the bowels, however, must be kept locked up for at least a week, longer is better, when the patient gets up a well man, complete union taking place by first intention. The above method I have employed in many instances with complete success. In hæmorrhoid and sprolapsus ani, I employ a similar treatment no matter how large the protrusion or how long the patient has suffered, first bringing the growths all outside the anus, and in one treatment of a few moments the work is done and is always successful, followed by no hæmorrhage or unpleasant symptoms or pain, and should my reader desire further information I shall be only too glad to give the same gratis to all who may apply by addressing me at Grand Rapids, Michigan.

102 Ottawa Street.

The Lungs and Liver in Phthisis.—Dr. Pleshivtseff (*St. Petersbury Dissertations*, 1888–9, No. 85), has weighed and measured the lungs and liver in eighty cases, forty-eight of which had died of phthisis. These weights and measurements are, in the tables he gives, all reduced by calculation to a common standard of height—viz., 100 centimetres. Thus, in the body of a woman 150 centimetres in length, all the weights and measurements are reduced to two-thirds of their actual value. In this way a fair comparison may be made between bodies of different sex and size. The total volume of the lungs in phthisical subjects was found to bear to that of non-phthisical subjects the ratio of 2414·8 : 2107·5; the volume of the liver in the two classes of cases had a ratio of 1404 : 1270. The lumen of the aorta was greater in the phthisical cases than in the others in the proportion of 65 : 79, and the circumference of the bronchi in the proportion of 70·8 : 81·1. Another table gives the ratio of the circumference of the bronchi and pulmonary artery to the volume of the lungs, and of the circumference of the portal vein and of the hepatic artery to the volume of the liver. The mean results obtained were that, in the phthisical cases, the bronchi were 1–29th and the pulmonary artery 1–34th of the lung volume. (The one measurement is linear, the other cubic, but this does not affect the comparison which the author wishes to draw.) In the non-phthisical cases the fractions were 1–25th and 1–19th respectively. The mean circumference of the portal vein was 1–36th of the volume of the liver in the phthisis cases and 1-30th in the others. The hepatic artery was also relatively smaller in the phthisis cases, being 1–46th in them and 1–32nd of the volume of the liver in the others. —*Lancet.*

Leprosy in Nova Scotia and New Brunswick.—It would seem that the south-western portion of the Dominion of Canada has more importance as a centre of leprosy than has been generally supposed. As is well known, it was found necessary to establish a leper hospital at Tracadie, New Brunswick. Three suspected cases having been reported in Cape Breton Island, Nova Scotia, Dr. Smith, the medical attendant of the Tracadie Leper Hospital, was commissioned by the Canadian Agricultural Department to make an inquiry; he fully confirms the diagnosis, adding that one of the three cases is in a very advanced stage of the disease. It is further reported that the cases in the hospital at Tracadie do not comprise all the lepers in New Brunswick, but that a considerable number of other cases are believed to exist, especially among the French residents in the northern part of the province.—*Brit. Med. Jour*

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BALTIMORE, SEPTEMBER 28, 1889.

Editorial.

SALOL IN THE GASTRO-INTESTINAL DERANGEMENTS OF CHILDREN.—Not a great many years ago all intestinal troubles of infancy, childhood and adult life were treated on the same general principle. A purge was given to remove all offending substances, and then astringents and carminatives followed. Such treatment in the majority of cases is followed with improvement and cure, but not a few cases are obstinate and continue in spite of everything. It is just here that the more modern medicine steps in and gains the day, and the practical side of bacteriology and modern chemistry scoffed at by many, shows itself to great advantage. The more recent study of the various intestinal disorders, particularly of children, has shown that a large number of micro-organisms is the accompanying factor or cause of these diseases, and many of these organisms have been carefully studied and classed and the action of the various germicides has been traced on them.

Dr. Walter Lester Carr, in a very brief, but none the less clear and valuable article (*Archives of Pediastrics*, September, 1889), gives us his experience with salol in thirty-five cases of gastro-intestinal derangement. The drug was used in all the disorders of the stomach and intestines common to children, but with the most success in the cases of acute gastro-enteritis, caused by improper diet or from temperature changes. It was generally given alone in those cases where there was vomiting of the food, and the movements from the bowels were ill-smelling, loose and quite frequent. Occasionally calomel or mercury with chalk, was ordered when the vomited material contained bile and the stools had a lumpy, clay-like appearance or were streaked with bile. The dose depended upon the requirements of the case. For children under six months one-half grain every two hours, for three or four doses was sufficient and this was increased with the age. It was readily taken in powder on the tongue and was combined with some inert substance.

His conclusions, drawn after the use of salol, indicate that it is an easily administered, safe drug in the first stage of acute gastro-enteritis in children, and in the more chronic forms of entero-colitis, accompanied by slimy, bad-smelling evacuations. In the acute condition it is necessary to keep the stomach at rest and administer two or three doses of salol within five or six hours

For the more chronic state of catarrh, it is best given in somewhat larger doses before meals. In frequent serous discharges and in colitis the salol does not produce the same good results as in the cases mentioned above, and its effect is uncertain, not being so rapid or so sure as an opiate.

In dysenteric disorders it cannot be relied on. It seems, then, that salol acts best in morbid conditions due to fermentation and decomposition in the stomach and upper bowel, and that it diminishes in power as it passes through the large intestine.

The Opening of the Medical Schools.—Before another week has passed the many medical mills of this country will have started their grinding process and in twice five months thousands of young men who at the start could not tell the uvula from the vulva will be vested with all the privileges of the experienced practitioner. In this city alone there are five bodies with power to grant diplomas, and before long a sixth will be added to the list. The proverb would do well to read "Study medicine in haste and repent at leisure," for thousands of young men are enticed into studying a profession which in the end promises no signs of support. Out of hundred medical graduates a very small number obtain a support from the actual practice of medicine alone, and still fewer make a success. The over crowding of a profession, however noble, tends by competition to degrade it.

Young men contemplating the study of medicine should be well grounded in the elementary branches, chemistry, physics and languages and then a course of medicine in a school of high order will not only be a fitting foundation for a future practice, but will be a source of pleasure and gratification to the man who loves his daily work.

Miscellany.

Hysterectomy for Fibroids in Vienna.—Professor Albert has published, in the *Wiener Med. Wochenschrift*, ii, 1889, a paper on ten successful cases of abdominal section for myoma of the uterus. In all, the extraperitoneal method of treating the stump was adopted. The elastic ligature was used in order to prevent hæmorrhage during the enucleation of the fibroid and the amputation of the uterus, the stump being fixed with pins. In fact, the operation was performed in the manner practised by Drs. Keith and Bantock in this country. In one case an abscess in Douglas's pouch was was laid open during the operation. The abscess was drained through the posterior vaginal fornix, the tube being removed on the fourteenth day. In another, Professor Albert found a pancreatic cyst in close proximity to the uterine myoma, which was very large, and removed both. This remarkable case will, the author informed his readers, be published in full. In one (and apparently in only one) of the ten cases a myoma had to be shelled out of the hyoid ligament. The posterior layer of the ligament was sewn to the abdominal incision, and the cavity left between the layers was stuffed with iodoform gauze. Professor Albert rejected the use of sponges for cleaning the peritoneum, and attributed his success in no small degree to this new departure. Our readers are aware that Dr. Keith, a successful operator, published a paper in the *Journal* of June 8th, wherein he advocated electricity as a safer and more justifiable proceeding in cases of fibroid than hysterectomy. Opinion is still much divided on this subject.—*British Medical Journal.*

Senile Microbio-Mania.—The *Revue de Thérapeutic* says: A savant of Naples, Dr. Malinconico, has made a greater discovery than the famous elixir

of youth of Brown-Séquard. The journals announce very seriously that Dr. Malinconico is about to discover the *microbe of old age.* This microbe is transmitted, according to the Italian savant, by inheritance, invades with age the entire human organism, ravages and destroys it, producing old age, and finally death. Dr. Malinconico hopes he will be able to discover the means to combat, and finally to destroy this terrible microbe, which will prevent men from growing old. The savants are invaluable!—*Times and Register.*

Absence of the Left Kidney.—Dr. P. Bezançon has recently described before the Société Anatomique de Paris a case of this malformation, where there was also great arrest of development in the genital tract. The patient was 38 years old, and had been married eight een years; the catamenia had never appeared. The father died of phthisis. She was admitted into the hospital in a moribund condition from advanced pulmonary phthisis. The disease had lasted about five months, and during the last years of her life she was addicted to drinking. She died three days after admission. The lungs were found extensively diseased. The right and only kidney was perfectly normal, anatomically and histologically. It weighed 95 grammes. On the left side a flat reniform body was found, connected with the vena cava, apparently the renal. This vein received the ovarian vein. On careful dissection, the reniform body proved to be the left suprarenal capsule; the kidney was entirely absent. There was but one ureter, and that lay on the right side; nor was there any trace of a left ureteric orifice in the bladder. Both ovaries and fimbriated ends of the Fallopian tubes were present; the uterus was merely represented by a fibrous band. The right broad ligament contained a myoma the size of a walnut. The vulvar structures were normal, but the vagina was reduced to a shallow fluid pouch, bearing evidence of tubercular ulceration. The absence of any disease of the single kidney in an alcoholic patient is worthy of note.—*British Medical Journal.*

Asthma and the Uterine System.—Dr. Peyer has recently written in the *Berliner Klinik*, part 9, 1889, on an affection which he terms sexual asthma. He mantained that asthma was always neurotic, and that in different subjects asthmatic convulsions were brought on by the influence of different functions. In two young married women coitus caused violent attacks of asthmatic sneezing. In another case the patient suffered from uterine fibroid, with severe asthma, which disappeared after the removal of the tumor. A patient was subject to violent asthmatic fits; on her becoming pregnant for the first time, the asthma was completely cured. In a similar case of asthma the patient suffered from chronic metritis. When the uterine affection was cured the asthmatic complication disappeared. In all Dr. Peyer's cases the patients were more or less hysterical, and in two or three there was a distinct family history of neuroses. The physician must be careful to distinguish between the possible coincidence of true asthma and disease of the sexual functions and the alleged form where the former is an effect of the latter. In the case of coincidence it is perfectly easy to understand that any aggravation of uterine or ovarian disease and any irritation of the sexual functions might aggravate the asthma. The other condition is less easy to understand, and very hard to prove in a scientific manner. —*British Medical Journal.*

Arteries for Drainage-Tubes.—At a late meeting of the American Surgical Association, Dr. S. H. Weeks showed some specimens of a new variety of absorbable drainage-tubes he has prepared. They are made from the arteries of the ox. The vessels are separated from their sheaths, and cut into appropriate lengths. They are first boiled in water for five minutes, then passed over glass rods of proper size. Subsequently they are immersed for ten minutes in corrosive sublimate solution (1 per cent.), and finally stored in alcohol (95 per cent.). They are said to be entirely unirritating, to act as efficient drains, and to be absorbed in about a week. —*Lancet.*

Warm Baths in Typhoid Fever.—Dr. Anuschat advocates, in a communication to the *Deutsche Medicinal Zeitung*, the employment of warm baths in typhoid fever in place of the cold water, to which the patients often evince such a great objection that they refuse to re-enter the bath. He disputes Brand's doctrine that the good effect of the cold bath is due solely to the low temperature, as in that case it would be equally advisable in all acute fevers. Dr. Anuschat believes the beneficial effect to be due to the water rather than to its temperature, and his view is confirmed by the results of 150 cases which he has treated with the warm bath. He administers three baths daily, from fifteen to twenty-five minutes each, at 95° F. if the temperature of the body is between 100·4° and 100·2°, at 93° if the body temperature is 102·2° to 104°, and at 90·5 only if the temperature of the body is higher than 104°. In most cases a perceptible improvement takes place in three days, with decrease of fever, but the good effect of the warm-bath tseatment is most plainly seen in the almost entire absence of secondary symptoms and the much shorter duration of the illness. Of 150 patients, 145 were less than four weeks confined to bed, and most of them less than twenty-one days. When the temperature of the body falls below 99·5 the bath is administered less frequently. The treatment—medicinal, dietetic and stimulant—recommended is much the same as that generally prescribed.—*Lancet*.

Tongue Tie.—Dr. Tassius, of Berlin, in a communication to the *Memorabilien*, makes himself responsible for some novel views on the propriety or otherwise of incising the frænum of the tongue. He says, in his introductory remarks, that the little operation has often been performed without considering that other and deeper causes, especially those connected with the general development, may be accountable for the faulty development of speech than the mere size of the frænum. He considers that this tiny and admirably constructed organ is a correct regulator of the various movements of the tongue, and that, if the same be too hastily interfered with, the more delicate movements may be for ever destroyed—a momentous fact for those who are destined to become public singers. He advises his medical brethren, therefore, to proceed very cautiously, and not to operate at too early an age, as much improvement may result from the advancement of general development. Only in those cases in which the frænum is so abnormally large and tendinous as to cause a fissure in the tip of the tongue, may the incision be made at once, but it should be calculated almost mathematically what proportion the depth of incision should bear to the fissure. The author deprecates, therefore, the use of scissors, as not to be depended on, but advocates the employment of a small knife, the incision to be made from below upwards. Where the frænum is of a fleshy character, and it is, consequently, certain that the child will never gain distinction in singing or elocution, there is, according to Dr. Tassius, no cause at all for immediate interference, unless the deformity causes a real impediment. It is far better to leave such cases—at any rate, for some time—entirely to the *vis medicatrix naturæ*.—*Lancet*.

The Functions of the Cerebellum.—Is the cerebellum an organ for the storage of cerebral events which have become automatic? Do we first of all receive with the cerebral cortex and then practise with the same brain-bark, and afterwards relegate to the cerebellum, as to a limbo, those things of which we are so tired of being conscious? Are all performances of the cerebral cortex conscious acts, and those of the cortex of the cerebellum unconscious? And so might questions, more or less unanswerable, be postulated without end. The functions of the little brain are scarcely known at all; even the dependance of the equilibrium on its existence may be called in question on the data supplied by pathology. It is perfectly certain that no obvious signs of nervous disease need exist when the lateral lobes are the seat

of even extensive mischief. Some regard the cerebellum as the terminal organ of all visceral sensation, and on this assumption it has been thought that the curious perturbations in visceral epilepsy are to be ascribed to perversions of the vitality of the gray matter of the little brain. Anything is possible for the cerebellum. The most gifted imagination might guess strange things, yet pathology could perhaps find exact counterparts.—*Lancet.*

A Drainage Tube Passed Through the Rectum.—Dr. Mariani describes, in the *Siglo Medico*, a case where a rubber drainage tube was passed into the abdominal wound after the removal of a large dermoid cyst which adhered to the parietes, the omentum and the liver. The patient was 46 years old. The wound healed in a week, but the tube had been allowed to slip into the abdominal cavity. The patient complained of pain, referred to the left anterior superior iliac spine. A week after the healing of the wound, the tube was passed during defæcation. It had probably caused inflammation of the adjacent large intestine, and passed through the softened walls of the gut. About twelve years ago an entire stump of an ovarian pedicle was passed at stool. The case occured in Germany, and the patient recovered. The expelled body must have entered the intestinal canal in the same manner as in Dr. Mariani's case.—*Brit. Med. Jour.*

The Cerebral Complications of Ear Disease.—Dr. Otto Körner, of Frankfort, points out that all the cerebral complications of ear disease are more frequent on the right than the left side. Thus, of 31 cases of cerebral abscess, 18 occurred on the right side from disease of the right ear, and 12 on the left from disease of the left ear, and in one case there was abscess on both sides following disease of both ears. Similarly, of 61 cases of thrombosis of the lateral sinus, 35 were met with on the right side and 26 on the left. Of 23 cases of meningitis from ear disease, 17 affected the right side and 6 the left. Adding these together, we have a total of 115 cases, of which 70 were on the right side, 44 on the left side, and 1 bilateral. Körner traces this great frequency on the right side to the fact that the groove for the lateral sinus passes further forwards and outwards into the petrous and mastoid bones on the right than on the left side. The bony wall separating the sinus from the mastoid antrum is therefore thinner on the right side. Added to this is the fact that in brachycephalic skulls the anterior cerebral fossa is considerably nearer the mastoid antrum than in the dolichocephalic. In the former cerebral complications of ear disease more readily ensue than in the latter.—*Lancet.*

Treatment of Alopecia Præmatura.—Dr. Oscar Lassar has contributed to the *Therapeutische Monatshefte* an interesting paper on the nature and treatment of alopecia (præmatura) furfuracea. This, the commonest form of baldness, is, according to the author, extremely contagious, and can be experimentally communicated from man to the lower animals, while every day it is unconsciously being spread widely among the general population. No specific organism has as yet been isolated, but a number of cases is given to prove the contagious nature of the disease. The following treatment is recommended as being efficacious in most cases:—The hair is washed daily with tar or other soap for 10 or 15 minutes, after which the soap is carefully removed with abundance of water. It is then rubbed with the following lotions: (1) hydragyri, perchloridum (½ per cent sol.), 150 parts, glycerine and eau-de-cologne, of each, 50 parts; (2) B-napthol 1 part, absolute alcohol 200 parts. After carefully drying, the following pomade is to be used: acid salicylic 2 parts, tincture of benzoin 3 parts, olive oil to 100 parts. The cure may take six weeks or longer, and careful prophylaxis with regard to brushes and combs must be carried out.—*Brit. Med. Jour.*

Fruit and Eggs.—Professor Fresenius, of Wiesbaden, after a long series of

chemical analyses, declares that an egg contains as much nourishment as a pound and an ounce of cherries, a pound and a quarter of grapes, a pound and a half of russet apples, two pounds of gooseberries, and four pounds of pears; and that 114 pounds of grapes, 127 pounds of russet apples, 192 pounds of pears and 357 pounds of plums are equal in nourishment to 100 pounds of potatoes.

Artificial Feeding and Infantile Diarrhœa.—Dr. Hope, Assistant Medical Officer of Health for Liverpool, in a statement to the Health Committee, has pointed out that there is at present a very high mortality in that city amongst children, chiefly due to diarrhœa and disorders of the stomach and bowels, and their consequences. Of 463 deaths from diarrhœa in infants under six months of age, which had been personally investigated, only 23 of the infants had been fed on the breast alone, the remainder having been wholly or partially reared on artificial diet. Dr. Hope said it was a fair estimate, based upon a careful inquiry, that in Liverpool the deaths from diarrhœa of infants under six months of age who are wholly or partially artificially reared, are twenty times as numerous as the deaths of infants reared upon the breast alone. This experience of the officers of the health department will be fully confirmed by that of all practitioners who are engaged working among the poor, either in hospitals or elsewhere.— *Brit. Med. Jour.*

Creasote Treatment of Pulmonary Tuberculosis.—Dr. Bourget has for the last three years treated tuberculosis of the lungs with large doces of creasote, thoroughly saturating the system with the drug, and he claims to have obtained most favorable results by his method. He prefers, however, guaiacol, as being less irritating to the stomach, and as being therefore better borne than creasote. Dr. Bourget recommends the following prescription, substituting in winter cod-liver oil for the wine: Guaiacol 2 dr.; tinct. quiniæ 6 dr.; vin. Malacc. 40 oz. He begins with a tablespoonful at every meal, gradually increasing the dose until three tablespoonfuls are taken. Patients have in this way taken from twenty-two to thirty grains of guaiacol in the day without ans trouble. Patients who could not take wine had the following enema administered: Guaiacol, 30 gr.; ol. amygd., 5 dr.; acac. pulv., 2½ dr.; cf. emuls. cui add. aqu., 40 oz.: misce; sig., "For four enemas." In winter Dr. Bourget prescribes: Guaiacol, 40 gr.; ol. jec. as., 6 oz.: misce; sig., "One tablespoonful at every meal." The patient is also rubbed with the following lotion before bed-time on chest and back and in the axillæ: Creasote e. fag., 5 dr.; ol. jec. asell., 6 oz.: misce. He is then covered over with blankets. During day, and if possible by night also, the patient inhales from two to three drops of creasote by means of a nasal respirator.—*Lancet.*

Posterior Rhinoscopy.—The difficulty of making a satisfactory examination of of the naso-pharynx and posterior nares by posterior rhinoscopy is well recognized. In the current number of the *Centralblatt für Chirurgie* Dr. Dorn states that he has had great success in cases of operations in this region by placing the patient with the head hanging vertically back over the end of a table. He states that in this posture it is easy to introdnce a mirror into the naso pharynx and to see every part of it and to manipulate instruments, such as forceps and snares, under the guidance of the mirror, just as is done in the case of the larynx. The danger of hæmorrhage during operations is greatly diminished when the patient is in this position.—*Lancet.*

Gurjun Oil in Leprosy.—A systematic trial of the gurjun oil treatment, from which Father Damien and several members of his afflicted flock are said to have derived benefit, is now being made at the Leper Hospital at Agra. Six typical cases have been selected, and the results are being closely watched by the medical officers of the hospital Their report will be looked forward to with interest.—*Lancet.*

Tuberculosis and Typhus in Munich.—Dr. von Ziemssen, the well-known head physician of the chief hospital in Munich, has recently published his observations and reflections on the decrease of tuberculosis in that city. His investigations had reference chiefly to the question as to what influence the cleansing of the soil of the Bavarian capital by sewers, which has almost banished typhus, has had on the frequency of tuberculosis. He shows that the number of deaths from tuberculosis has diminished by one-fourth during the last twenty-one years, and by one-third during the last eighteen years Of every 100 deaths in Vienna in 1888, 23 were due to tuberculosis; in Würzburg, 19; in Frankfort-on-the-Main and Nürnberg 18; in Elberfeld and Leipsic, 16; in Berlin, Dresden and Altona, 15; in Cologne and Stuttgart, 14; in Augsburg, 13; in Munich, Ratisbon, Hamburg and Magdeburg, 12; in Breslau, 11; in Goerlitz, 10; and in Chemnitz, 9 per cent. Munich, accordingly, is one of the German cities which suffer least from tuberculosis. Von Ziemssen, however, hesitates to attribute this comparatively happy state of things to the soil alone. Nor can the protection which the boiling of milk, much more usual now than formerly, affords against the schizomycetes in the milk of tuberculous cows be regarded as the sole reason of the improvement; for Bellinger's most recent investigations have proved that the virus of the milk of a few such cows is counteracted by being mixed with that of many healthy ones. Von Ziemssen thinks that the improvement is due not only to the cleansing and drying of the soil on which the city stands, and to the supply of pure water, but also to the better construction of the houses, especially of the schools, the widening of the streets, and the laying out of large open spaces, plentifully planted with flowers, shrubs and trees. In connection with this subject, it is interesting to note, on the distinguished authority of Von Ziemssen's equally famous townsman and colleague, Professor von Pettenkofer, that twenty-eight times as many persons died of typhus in Munich in the sixth as in the ninth decade of this century, though the population has doubled in the interval. This victory of sanitary science is due to the simple facts that the city is now better supplied with drinking water, that the cess-pools have been rendered water-proof and sewers have been laid, and that a central slaughter-house has been erected. These results are chiefly owing to the noble labors of the above-mentioned scientists and men like them.—*Lancet.*

Hydroxylamine.—In 1865, the chemist Lossen discovered a substance capable of forming salts, and having the formula $2H_2O+NH_2OH$, to which he gave the name of hydroxylamine. The toxicological property of it and its salts was studied in 1888 by Professor Binz, who found that it produces in the lower animals stupor, convulsions, hæmaturia, and discoloration of the blood, the latter change being due to the formation, not only to methæmoglobin, but also to the reduction of this substance in part to hæmatin. In his experiments the physiological action of the hydroxylamine so closely resembled that of pyrogallic acid, chrysarobin, anarobin, and allied substances, which have been found serviceable in the treatment of psoriasis, that he suggested its use in skin affections.

The physiological action of hydroxylamine has during the present year been further studied by Professor L. Lewin, of Berlin, who has not added very much positive information to the results previously obtained, but has determined that it affects dead and living blood similarly, and that its action upon the corpuscle is probably due to its decomposion, and the liberation of nitric or nitrous acid.

The practical suggestion of Professor Binz has led to trials of the drug by the German dermatologists, and especially to a careful study of it by John Fabry (*Archiv Dermat et Syph.*, Heft ii., 1889). This clinician found that a ten per cent. solution is excessively irritant to almost all skins, causing intense redness, violent burning, sweating, and not rarely blistering the part. Some skins will not

bear a one per cent. solution, so that it is not safe in a new case to begin with a stronger application. The solution should be gradually increased, and be applied at intervals of one, two, or three days, according to its effects. In the cases studied by Fabry, the results were most favorable. One very severe example of chronic psoriasis, which had resisted other treatment, had the ordinary solution of pyrogallic acid applied to one arm, to the other the solution of hydroxylamine. At first the arm treated with the acid appeared to improve most rapidly, but in a few days the other arm overtook and passed it on the road to recovery, and was well some time before the other.

Two formulæ have been used by Fabry, one spirituous, the other aqueous.

Hydroxylamine muriate, 2 to 5 parts;
Alcohol, 100 parts;
Chalk, sufficient to neutralize.
Mix and filter.

Hydroxylamine muriate, 1 part;
Water, 1000 parts;
Chalk, sufficient to neutralize.
Mix and filter.

The great advantage which hydroxylamine has over pyrogallic acid, anarobin, chrysarobin, and other previously used substances is, that while the latter always deeply stain the skin, it is entirely free from color and from dyeing properties.—*Therapeutic Gazette.*

Diabetes Mellitus After Extirpation of the Pancreas.—Drs. V. Mering and O. Minkowski report a large number of experiments from their laboratory at Strasburg, all showing that extirpation of the pancreas results in true diabetes mellitus with all its ordinary symptoms. A dog whose pancreas had been removed secreted after forty-eight hours' fasting from 5 to 6 per cent. of sugar in his urine. Another dog, weighing 15 lbs., secreted, under an exclusive meat diet, two pints of urine daily, with 6 to 8 per cent of sugar. Introduction of grape sugar into the food resulted in an increase of this by 6 per cent., by far the greatest part of the grape sugar being excreted without having undergone any modification. The urine also contained appreciable quantities of "acetone." The percentage of sugar in the blood was likewise much increased, being in one case 0·30, in another 0·46. Glycogen, at the same time, disappeared altogether. In a dog, for instance, which had been diabetic for four weeks, and which was killed while being fed on full flesh diet, neither liver nor muscle contained glycogen. Transfusion from a diabetic dog caused no secretion of sugar in a healthy dog.—*Lancet.*

The Bacilli of Cholera, Typhoid Fever and Tuberculosis in Milk, Butter and Cheese.—The experiments of Dr. L. Heim in the laboratory of the German Imperial Health Department on the vitality of certain germs in certain kinds of nutriment, have led to the following results: In non-sterilized new milk the germs of cholera bacillus remain as long as the milk has not become very acid. A somewhat high temperature, which accelerates the acidity, accelerates the destruction of cholera bacilli. Occasionally they could be seen for two or three days even in acid milk. Their extreme vitality was six days. In butter they could in favorable circumstances live a month; but in butter that had become caseous and in cheese-curds, they could barely live a day. The bacilli of typhoid fever had a much greater power of resistance in milk; in non-sterilized milk which had become acid, they were still visible after twenty-one and thirty-five days, but could not be found at the end of forty-eight days; in butter their vitality lasted three weeks; in whey and natural cheese, only three days. Milk which contains tubercle bacilli may produce the disease. These bacilli may live for three days in decomposing substances. Milk to which tubercle bacilli had been added was after ten days still infectious, but not so in four weeks, especially if decomposition had taken place in the meantime. In butter the vitality of tubercle bacilli lasted four weeks. In whey and cheese

they were able to communicate the dissase for a fortnight, and they remained visible for thirty-two days.—*Lancet.*

The Tenth International Congress, Berlin, 1890.—We have received official intimation from Professors Von Bergmann, Virchow and Waldeyer that the International Medical Congress, to be held next year at Berlin, will be opened on the 4th and closed on the 9th of August. Details respecting the order of proceedings will be furnished after the meeting of the German Medical Faculties and Medical Societies at Heidelberg on September 17th next. The circular concludes: "Meanwhile, we should feel sincerely obliged if you would kindly make this communication known among your medical circles, and add, at the same time, our cordial invitation to the Congress."

The Medical Department of the Paris Exhibition.— This department has just published its report relative to its work during the months of June and July last. As has before been mentioned, the ambulance system is well organized. The stretchers are always ready to pick up patients, who are then attended to and conveyed to their own homes or to a hospital. The following statistics may be found interesting. The medical service had consumed during the two months of June and July, 2 litres of ether, 20 litres of camphorated spirits, 60 litres of eau de mélisse (a kind of aromatic spirits), and 100 litres of carbolic water. Fifty mustard plasters were applied, and 300 hypodermic injections of morphia and of cocaine were practised on patients at the Exposition. The number of dressings amounted to 1,780, of which 935 were for visitors. One workman died from accident; among the visitors there were six cases of sudden death. In this period of two months, 18 workmen and 490 visitors were sent to the hospital. The greater number of the injured workmen were the subjects of crushing (*écrasement*), contusions or cuts. The indispositions have almost always had for their cause, among the visitors, indigestion and affections of the heart. There have been some cases of poisoning, and three cases produced by the ingestion of sausages and hams.—*Lancet.*

The following is the constitution of the Continental Anglo-American Medical Society, of Paris: Honorary Presidents: Sir Spencer Wells, Sir Joseph Lister, Dr. Richard Quain, Professor Brown-Séquard, Dr. Ricord, Dr. J. S. Billings, Dr. Fordyce Barker and Dr. Weir Mitchell. Executive Committee: The Hon. Alan Herbert, M. D., Dr. Faure-Miller, Dr. Chapman, Dr. Dupuy, Dr. Barnard; and Dr. T. Lynn as Secretary (16, Rue de la Paix, Paris), to whom all communications should be addressed. The first general meeting of this Society will take place at the Grand Hotel, Paris, on Monday, September 30th, at 5 P. M.; and the first annual dinner will also take place at the Grand Hotel at 8 P. M. on the same evening.—*Lancet.*

Treatment of Warts.—Altschul recommends the treatment of warts by Unna's method, namely, mercurial ointment, containing 5 to 10 per cent. arsenic. The ointment is spread on linen, and applied over the wart, which gradually softens, and is finally absorbed without leaving any mark. The method is painless. The treatment of warts by arsenical paste is by no means a new one, and its efficacy has been frequently confirmed.—*Lancet.*

Thyroidectomy.—Goitre is such a rare disease in the United States that the subject of its operative treatment is of but little practical importance for most of our readers. Nevertheless, the results obtained are so mysterious that perhaps a few words concerning them, as at present illustrated in the wards of Professor Theodor Kocher, of the University of Berne, may not be devoid of interest. As is well known in the great majority of cases, myxœdematous diseases, after a time, follow the complete removal of the gland. This Professor Kocher has found may be avoided by

leaving in the neck one lobe, or even part of a lobe, of the gland. By means of careful antiseptics the operation is so robbed of its terrors that we have seen a patient four days after it entirely well, the wound being completely healed.

A very bold experimental operation for the relief of the myxœdema, which has followed complete removal of the gland, is now under trial. It consists in inserting a fresh, healthy piece of the gland in the abdominal cavity, with the hope that it may form attachments and perform its mysterious function. In one case, probably by pressure upon the large intestines, the inserted mass, after the complete healing of the wound, caused such violent colicky attacks that it had to be removed, but in most instances no evil effects have followed the insertion. What becomes of the transplanted gland is not yet known. A case was recently shown us that had been operated upon three months previously, in which the presence of the gland in the abdomen could apparently be still demonstrated by palpation, etc., and in which, the patient asserted, his general condition was much better than before the abdominal section. It will be a very strange physiological fact if it should be found that the transplanted gland has the power of taking root and adapting itself to its new environments. It is, perhaps, allowable to add that the glandular masses for transplantation have been taken from the necks of individuals with hypertrophied thyroids.– *Therapeutic Gazette.*

Coronilla, a New Heart Remedy. —Coronilla Scorpioides, the annual plant from which this remedy is obtained, belongs to the family Papilionaceæ, suborder Coronillæ, and is widely distributed through the southern parts of France. From experiments made on animals, Dr. Cardot has determined that the coronilla arrests the heart of the frog in systole, and in his inaugural thesis sustained in Nancy in 1886 he refers to four cases in which this remedy had produced considerable amelioration in various cardiac affections.

Dr. Cardot's statements, however, attracted but little attention, until recently Schlagdenhauffen and Gley and Spillman have again called attention to this subject in papers read before the Société de Biologie, while finally, quite recently, Schlagdenhauffen and Reeb (*Revue Générale de Clinique et de Thérapeutique*, July 25, 1889), state that they have isolated a glucoside from the coronilla, which they term coronillin, of which the toxic dose would amount to ¾ of a grain for a man weighing about one hundred and twenty pounds.

Nevertheless, the authors maintain that to produce any therapeutic effect, 2 to 3 grains must be administered, or from 9 to 22 grains of the extract. The remedy is stated to act especially on the myocardium, whose contractility it increases.

Dr. Spillman has employed it in seventeen cases of heart-disease, administering it in the asystolic period. In eight cases the remedy is stated to have produced satisfactory results, in two cases it produced very slight amelioration and in seven cases its therapeutic action was entirely negative. A diuretic effect was frequently observed, the amount of urine evacuated daily increasing in a few days from seven ounces to two to four quarts.

Coronilla is stated to act but feebly on the number and rhythm of the cardiac pulsation, but it is claimed to produce an increase in the amplitude of the pulse and augmentation of the diuresis, and diminution of œdema and improvement in the respiration.

In Dr. Spillman's case the remedy was administered for three or four days in succession, and the therapeutic effect was only perceptible after twenty-four to thirty-six hours after the administration of the first dose.

It appears that whatever good effects may be obtained from the use of this remedy, they are of the most transient character, since it is stated that twent-four hours after the cessation of the use of this drug the patient's condition returns to its original state.

The value of the remedy is thus highly problematical, especially when we take into consideretion that while Schlagden-

hauffen states that ¾ of a grain is a poisonous dose, that Dr. Spillman should, nevertheless, recommend the administration of from 3 to 5 grains.

Evidently further studies are required before any definite opinion can be expressed as to the value of this one of the most recently recommended remedies.—*Tnerapeutic Gazette.*

The Value of Caffeine in Adynamic Conditions.—In spite of the continued endeavors of Dr. Huchard, of Paris, to demonstrate to the medical profession the value, and simultaneously the harmlessness, of large doses of caffeine, still there seems to be a prejudice against the drug and a ruling idea that its free use is likely to produce unpleasant cardiac symptoms. New remedies, of doubtful efficacy, that are springing up daily, find no lack of advocates, whilst many comparatively older drugs do not receive the attention that their curative properties warrant. This is Huchard's complaint, as he once more brings to the notice of the profession the value of large and repeated doses of caffeine in all adynamic conditions. As an example of its efficiency, Huchard, in the *Therap. Monatshefte* for August, cites the case of a gouty man who was suffering from a right sided pneumonia, and who, twelve days later, developed an inflammation of the left lung. The patient fell into a condition of extreme adynamia, and collapsed. During the following thirty days, Huchard gave this patient 95 hypodermic injections of caffeine, of 4 grains each, 51 injections of ether, and 19 of trinitrin. The result of the treatment was satisfactory beyond all expections. The author quotes five cases in which the value, as well as the harmlessness, of the drug in large doses is clearly demonstrated. He employed it in four other cases of pneumonia; in such instances, "the disease is in the lungs, but the danger in the heart." Huchard does not hesitate to employ subcutaneous doses as high as 31 to 48 grains. The reported efficacy of daily doses of 3 to 5 grains is entirely illusionary.

Huchard's experiments upon animals proved that the drug acted upon the central nervous system before it influenced the heart. There is, therefore, a marked difference between the action of digitalis and caffeine. Digitalis affects primarily the heart, caffeine the nervous system.

In conclusion, the author asserts:

1. That the great value of large doses of caffeine, given subcutaneously, in all adynamic conditions is unquestionable.

2. That large doses of caffeine are entirely harmless.—*Med. News.*

Toothache Drops.— The *Therap. Monatsheft* for August gives the following:

℞.—Extract of opium Camphor trit. Balsam of Peru	}	āā 8 grains.
Mastic		15 grains.
Chloroform . . .		f ʒ iij.—M.

Soak a pellet of cotton in this mixture and place it in the cavity of the tooth.—*Med. News.*

Bromide of Potassium as an Antidote to Iodoform.—A case of resection of a carcinomatous rectum is referred to in the *Wiener Medizinishe Blätter* for July 11, 1889, in which symptoms of poisoning were produced through the use of iodoform. Under the use of bromide of potassium rapid relief was obtained. This condition is explained by Samter and Retzlaff as due to the fact that bromide of potassium exceeds all other salts in its power for dissolving iodine compounds. They state that if a test-tube be half filled with a solution of potassium bromide (1 to 3), fifty drops of tincture of iodine may be added without the iodine being displaced from its solution with the potassium bromide. This condition persists for several days, and bromide of potassium, of all the different salts recommended in iodoform poisoning, is the only one which is capable of retaining the iodine in perfect solution.—*Therapeutic Gazette.*

Medical Items.

Ex-surgeon Joseph F. Beale, U. S. N., died in Philadelphia on Tuesday.

The Women's Hospital on John and Townsend street reopens October 1st.

Dr. W. Milton Lewis has removed from 1209 Argyle avenue to 1209 Presstman street.

A widow twelve years old in Virginia has given birth to a healthy, well-developed child.

A case of death under chloroform recently occurred at Liverpool and one at Cincinnati, O.

The drainage question is receiving considerable discussion in connection with Spring Lake, N. J.

Hog cholera is prevalent in some of the counties of Maryland. Kent county has been quarantined.

Dr. Maurice Perrin, president of the Academy of Medicine at Paris, died recently.

A death has just occurred in Reading from accidentally swallowing a set of false teeth.

Dr. F. R. Rich, of class of '89, University of Maryland, has recently been appointed physician to the poor of First Sanitary Division of District of Columbia.

Professor Weigert, who has edited the *Fortschritte der Medicin* ever since the death of Dr. Carl Friedländer, its founder, has resigned its editorship.

Mr. Reginald Harrison, of Liverpool, the well-known authority on diseases of the urinary organs, is about to take up his residence in London.

Dr. George M. Sternberg, U. S. A., has just returned from Cuba where he has been continuing his investigations in yellow fever.

Dr. Herbert Harlan has returned to the city and has opened his office at 317 North Charles street, formerly occupied by Dr. J. F. Perkins.

Dr. Geo. J. Janeway, of New Brunswick, N. J., and the father of Dr. Edward G. Janeway, of New York, died on Monday, the 16th inst., aged eighty-three.

The *Quarterly Compendium* has ceased its existence. Its editor will devote his entire attention to the *Medical and Surgical Reporter.*

The Emperor of Austria is establishing sterilizing apparatus on a large scale for the gratuitous preparation of milk for the children of the poor.

The University of the Pacific at San José, Cal., will hereafter prohibit the entrance of any student who indulges in tobacco in any form.

It is proposed to remove the headquarters of the Hay Fever Association from Bethlehem, N. H., because of the treatment of the citizens of the place.

Cholera is so prevalent at Pekin that, with the exception of the custom house officials and some other functionaries, all foreigners have taken refuge in the mountains.

By reason of a bequest made by Mr. Wm. Thaw, one of the wealthy citizens of Pittsburg, the sum of one hundred thousand dollars is appropriated for the benefit of the hospitals.

The Iowa State Board of Health has decided that Iowa medical colleges after 1891 must give a four years' course, if they desire their graduates to be admitted to practice within the borders of the Commonwealth.

Dr. Lutze, formerly assistant in Dr. Unna's clinic at Hamburg, has been invited to proceed to Honolulu by the Haiwaiian Government, and to remain there some time, to study leprosy, and to investigate the new methods of treatment.

In Austria there are only 218 homœopathists, out of the whole number of medical men, which is 7183; and only 44 of these profess to practice homœopathy exclusively—and the number also is said to be steadily decreasing.

Prof. Lawson Tait, of Birmingham, will deliver the annual address, on "Ectopic Gestation," to the members of the Northumberland and Durham Medical Society, in the College of Medicine, Newcastle-on-Tyne, on Oct. 4th.

The death rate per thousand for the week ending September 21, was remarkably low. It was 15.22. The death rate in Baltimore would be much lower if it was not for the mortality among the colored race.

Professor Lexis, of Göttingen, has recently published statistics showing that there are in the German universities twice as many students as can hope to make a living by the professions which they are preparing to enter.

Dr. Ernest Laplace, of New Orleans, has been elected to the Chair of Pathology in the Medico-Chirurgical College, Philadelphia. Dr. Samuel Wolfe, of Skippack, Pa., will fill the Chair of Physiology in the same institution for the coming year.

The various medical schools will open next week. The College of Physicians and Surgeons adds their new hospital of 300 beds to their present facilities. The University of Maryland has refitted their lecture rooms with new theatre chairs throughout.

Dr. W. P. Manton, of Detroit, has been obliged to give up the editorship of the *Microscope* on account of press of other work, and he has been succeeded by Dr. Alfred C. Stokes, of Trenton, New Jersey, a worker well-known in the microscopical field.

At the meeting of the American Pediatric Soicety last week the following were elected: President, J. Lewis Smith; first vice-president, A. V. Meigs; second vice-president, F. Forchheimer; secretary, W. D. Booker; recorder, W. P. Watson; treasurer, C. W. Earle; member of council, L. E. Holt.

Dr. H. Harlan while in London agitated the question of post-graduate courses on the plan of the Vienna courses. Since then letters have appeared in the English journals advocating the same thing, and now in the educational numbers of the *Lancet* and *British Medical Journal* post-graduate courses at London and Edinburgh are announced at some of the hospitals. The fees are by no means moderate.

It is stated that a Paris stationer has invented an ink warranted to fade off the paper in a week, without leaving the slightest trace. To say nothing of the advantages of such a discovery to fickle lovers and shifty politicians the use of this convenient liquid may perhaps commend itself to medical practitioners who have strong opinions on the question of vested interests in prescriptions.

At the meeting of the American Pedratic Society held in Washington and Baltimore last week Dr. Thos. S. Latimer presented an unusually interesting case of spastic paraplegia, and Dr. W. D. Booker read his second communication on a study of some of the bacteria found in the dejecta of infants affected with summer disorders. Dr. Osler's illness prevented him from showing the cases announced by him.

The American Pediatric Society met in Washington September 20, and on invitation from the Johns Hopkins Hospital it held a meeting in that building in Baltimore September 21. The members were met in Baltimore at the station and driven to the hospital where they continued their session. At noon a lunch was served and after that the building was inspected. The society adjourned that afternoon and were driven to the station to return to their homes.

The Prussian minister of education is turning his attention towards the study of the history of medicine, which seems to have been slowly dying out. There used to be a chair for this subject at every German University, but they all have become vacant with the exception of the one at Berlin, occupied by Professor Hirsch, the Nestor of the historians of medicine. To counteract this, it has been ordained that every newly appointed professor of hygiene should give lectures on the history of medicine as part of his work.

Original Articles

THE TREATMENT OF SUCH EAR DISEASES AS ARE USUALLY SEEN BY THE GENERAL PRACTITIONER.

BY HIRAM WOODS, M. D.,
BALTIMORE, MD.

Assistant Surgeon at the Presbyterian Eye, Ear and Throat Hospital, and Professor of Diseases of the Eye and Ear at the Woman's Medical College, Baltimore.

TREATMENT OF DIFFUSED OTITIS EXTERNA. FURUNCLES. ASPERGILLUS. DESQUAMATIVE INFLAMMATION OF THE CANAL. IMPACTED CERUMEN.

PAPER IV.

Treatment of Diffused Otitis Externa: It must first be determined whether or not the disease is primary or secondary to an otitis media. If the methods of diagnosis already given indicate the latter the treatment should be directed to the tympanum, unless there is pain clearly referable to the external canal. To quiet the pain remedies must be varied according to the condition of things found. As already stated, there has been *severe* pain in only two or three of the cases which have come under my care, but in these it was very severe and did not yield until the walls of the canal had been incised. Dr. Buck says that while the ear is painful he "abstains entirely from the introduction of any other fluid but water into the canal." I believe this is the best rule to observe, unless the atropia and cocaine solution recommended for "otalgia" be used. There are douches specially designed for the ear, but it is not necessary to introduce the water in this way. If the ear is kept full of *warm* water the pain will usually be relieved. The chief advantage of the douche is that there is a constant stream passing into the canal. Hot flannels, or a bag of hot water, placed by the ear at night will often secure rest. Atropia, with and without cocaine, heated and used without heating, has so often relieved ear-ache and reduced the hyperæmia of the canal and drum that I now use it frequently.

Should the pain still persist, and there be little or no swelling of the canal, leeches may be applied in front of the tragus. I have never used them but once in an *otitis externa*, and then they did no good at all. The case developed into mastoid periostitis. Indeed, it may have been such from the start, although for three days the only evidence of trouble was in the posterior wall of the canal. Leeches are admitted not to be as useful in otitis externa as in otitis media.

If the walls are hot, tense and swollen, scarification is the surest method of giving relief and curing the disease. Hot water should be used after the incisions.

Suppuration of the Canal.

The best way to clean the canal is to use the syringe, very gently—for a strong stream of water aggravate the trouble. If this does not suffice, I employ a solution of bi-carbonate of soda for two or three days, or use the peroxide of hydrogen solution. These agents soon soften the secretion and it comes away easily with the syringe.

It is only rarely that I use either the curette or forceps in cleaning an inflamed ear. From my experience in learning how to use these instruments, I am led to think that it is easier to abrade the walls of the canal than *not* to do it. Nine patients out of ten will move the head just as soon as the first pull is made on the hardened and adherent secretion or flake of epithelium. Then the operator has to get away at-once. If the attempt be made with a *straight* pair of forceps and the light from a window, the danger of injuring the canal is greatly increased. Ulceration is apt to take place at the point of injury.

After the canal is thoroughly cleaned, astringent applications should be made. Solutions of nitrate of silver are thought to be most effective. Roosa recommends them in the strength of "20 to 40 grains to the ounce, penciled over the parts."

Such applications are not painful, and are prompt in curing many cases. I use, myself, a 30 grain solution. Buck recommends a solution of 60 to 120 grains to the ounce, "instilled into the ear, without previous warming, and allowed to remain until the patient experiences a distinct sense of warmth, or a throbbing sensation in the ear." Then the solution is to be immediately washed out with warm water. I have never used these strong solutions, but would not hesitate to do so in an obstinate case which had resisted other treatment.

Other remedies which I have used with good results in suppuration of the external canal, are a saturated solution of boracic acid in distilled or camphor water, and the tincture of the chloride of iron. Neither is equal to pencilling the canal with nitrate of silver. When there is very little discharge, and it is serous rather than purulent, dry boracic acid may be used with good effect. I have also used the following ointments in subacute or chronic cases :

1. Ol. Cade M iii-x,
   Vasiline 3 i
2. Hydrarg. Ox. Flav. grs. v-x,
   Vasiline 3 i
3. Liq. Plumbi Sub-acet. M ii-v.
   Lanoline - - 3 i.

It is hard to say how much permanent good these subacute cases receive from treatment, as such patients rarely come back to report after the symptoms are relieved.

When there are localized ulcerations, I usually touch them with pure carbolic acid.

CIRCUMSCRIBED INFLAMMATION, OR FURUNCLES OF THE CANAL.

This is a much more common form of ear inflammation than the one just spoken of. The furuncles usually form in the cartilaginous portion of the canal —the anterior and inferior walls seeming to be favorite places. The seat of the inflammation is a sebaceous follicle. Pain, sometimes excruciating, is usually the only symptom. The objective appearances differ according to the depth of the inflammation and the presence or absence of pus. If superficial, and if pus has formed, a swelling will be seen in the meatus. If the inflammation is deep, and if pus has either not yet formed, or is still below the surface, there will only be observed a hyperæmic and tender area, with little or no swelling. The exact point of the inflammation must now be determined by carefully touching the inflamed region with a blunt probe. In this way the focus of the inflammation will soon be found, because it will be the most painful point.

As to the *causes* of furuncles, or follicular inflammation, Dr. Roosa thinks they never occur unless the health is otherwise affected. Politzer says they come in perfectly healthy persons. I believe they are more common in anæmic patients; but, if they appear *only* in this class, it must be admitted that they are often the only evidence of the anæmia. They are secondary to other ear inflammations, as otitis media, and are supposed to be caused by alum, zinc and other astringents used for suppurative otitis media. I have seen one case of furuncular inflammation after the use of powdered alum in otorrhœa. The views of Loewenberg—that follicular inflammation is due to micro-organisms, and that the presence of these in the pus accounts for furuncles coming in "crops"—are given in most of the standard text-books, including Politzer and Roosa. The former apparently accepts this theory, and advises antiseptic treatment.

Treatment.—There are two objects to be attained: 1, to relieve the pain, 2, to prevent the formation of other furuncles.

The first can, I think, be best accomplished by incision through the inflamed part—whether pus has formed or not. The depth of the incision must depend upon the amount of swelling, the tension and the presence or absence of pus. As a rule, I believe, it is best to cut deep, even down to the cartilage, unless pus is found sooner. After the incision, the pus and blood should be

carefully wiped away with absorbent cotton dipped in warm water. The pain is usually relieved promptly. After cleaning the cut, I try to meet the second requirement by applying some antiseptic ointment. Boracic acid or carbolic acid (grs. x of the former and iv of the latter, to vasiline 3 i), are excellent applications. At the Eye and Ear Hospital, the yellow oxide of mercury ointment (grs. ii-3 i) is used in routine practice. If the pain is not relieved by the incision, a hot flannel over the ear, or a small, conical poultice in the canal will soon lead to the formation of pus. In my experience the cases not relieved by early incision and requiring poultices, are exceptional. Iron may be given internally, if required.

Sometimes the patient will not allow the incision. The use of the boracic acid or carbolic acid ointment will sometimes relieve the pain, and prevent suppuration. I have seen a painful furuncular swelling disappear under systematic applications of the yellow oxide ointment (grs vi to 3 i). Dr. Chisolm tells me he has also seen this frequently. So far as I know, Buck is the only modern author who advises the use of larger poultices over the ear ("5 or 6 inches square," are his directions), to be continued until pus has formed; the use of the knife to be postponed till then. True, the pain is relieved by the heat and moisture as the tissues soften. But heat and moisture will not only promote suppuration in the inflamed part, but will also fit surrounding parts for the invasion of the disease. Formerly, at the hospital, when the conical poultice was always ordered after incision, "crops" of furuncles were numerous. Under the plan of treatment advised—which is almost exactly that of Politzer—I seldom see a second abscess. My own opinion is that poultices should not be used for diseases of the canal or tympanum if it is possible to relieve the pain in any other way. I think it is very seldom that this cannot be done.

ASPERGILLUS, OR PARASITIC INFLAMMATION OF THE EAR.

Only a few words need be said about this disease. It is a vegetable fungus growing in the canal. The spores find a lodgement, where they grow, forming a coating to the walls, or sometimes a plug, which is removed with great difficulty. It rapidly reforms. It is not a primary affection, but is always secondary to some other disease. It has been observed in otitis externa and media, and impacted cerumen. The use of oils is a predisposing cause. Judging from my own experience, it must be a rare disease. I have seen, in my six years at the hospital, only two or three cases. But one case was recorded there in 1888, and I did not see that.

Apart from the microscopic appearances, aspergillus can usually be diagnosticated when, in the course of another inflammation of the ear, there forms in the canal a mould, or cast, usually of a whitish or yellowish color, which speedily returns after removal, and persists in doing so. The treatment is to kill the spores, after first thoroughly cleaning the ear. Alcohol is considered the best and safest remedy.

DESQUAMATIVE INFLAMMATION.

Under this head Dr. Buck describes as a separate disease what most authors consider only a form of diffused otitis externa. In hospital reports it is more frequently classified as impacted cerumen than as an inflammation. The objective changes are the occasional plugging up of the canal by a mass of desquamated epithelium wax and pus, the epithelium being deposited in laminæ. These plugs are excessively hard to remove. After they have been soaked for a day in bicarbonate of soda or peroxide of hydrogen solution, they come away more easily, although then the forceps and curette are often essential. The walls of the canal are inflamed and scaly. In five or six months the meatus is apt to close up again. In the meantime the ear gives little or no

trouble. There is usually pain when an attempt is made to remove the plug; otherwise deafness and tinnitus are the only symptoms, and these promptly disappear after the canal has been cleaned.

I have seen a large number of these cases. The symptoms and desquamation differ considerably from those of diffused otitis externa. Whether there is enough difference to warrant the trouble being classified as a distinct disease is a question which it is unnecessary to discuss. The treatment consists in removing the plug as easily as possible. Syringing has had very little effect in the cases I have treated, and I have dug the mass out with the curette and angular forceps. As to preventing a recurrence of the impaction it is impossible, as Buck says, to recommend any line of treatment. As soon as the hearing is restored and the tinnnitus cured the patient usually ceases his visits to the physician.

IMPACTED CERUMEN.

These are a few points connected with this very common trouble which are worthy of special mention. In the first place, it is the *situation* and not the *quantity* of wax in the canal which produces dropsy. As long as there is a clear passage between the drum and the outside atmosphere—however narrow—there will be no defect in the hearing produced by the wax plug. As soon as this passage is closed deafness and tinnitus at once supervene. A very small piece, pressing on the drum, may cause tinnitus without materially interfering with the hearing. Again, an examination of the hearing power of a number of years, from which I have removed ceruminous plugs, has convinced me that Dr. Roosa and others are correct in stating that usually impaction of wax does not occur in ears otherwise healthy. Dr. Roosa states that the presence of impacted wax is of itself pretty good evidence that there has been some *previous* sub-acute inflammation, even when hearing is *perfectly restored* by cleaning the canal. Unquestionably the removal of the wax does restore the hearing in most cases, but it is not always *normal* hearing, even if it is sufficiently acute for practical purposes. The tests which I have used are the watch and tuning-fork. The former, in my experience, has seldom been heard, after the wax has been removed, at the normal distance —48 inches—while the latter has usually pointed to middle ear deafness. Dr. Roosa gives the following diseases of the ear as those in which impaction of wax is apt to occur: Chronic suppuration of the middle ear, chronic non-suppurative inflammation of the middle ear, diffuse inflammation of the canal, foreign bodies, exostosis and hyperostosis of the canal and parasitic inflammation. The second and third of the above have seemed to me to be the most common accompaniments of wax plugs.

The diagnosis is easy. It is only necessary to look into the canal through a speculum and see the black or brown mass which hides the drum from view. But it *is* necessary to do this. If the statements often made by patients with chronic non-suppurative catarrh or labyrinthine deafness are true, the diagnosis of "hardened wax is frequently made, and useless syringing persevered in, without the formality of this examination.

In my opinion the best and easiest way to remove the wax is by the syringe. If it is hard and resists the action of the water a solution of bicarbonate of soda will soon soften it. Afterwards care must be taken to carefully dry the canal. I think it is always best to inflate the Eustachian tubes by Politzer's method after drying the ear. Dr. Buck prefers to remove the wax with the curette and angular forceps. He thinks the removal can be effected much more quickly and pleasantly in this way than by using the syringe. It is a more difficult operation than syringing, but this, as Dr. Buck says, is not to be considered if there are decided advantages over the easier plan. If the mass is very hard I often break it down with the curette before syringing, but in most cases the syringe does prompt and effective work. I certainly do not think that the advantages of the syringe and

the possible dangers from its use are so great as to cause it to be set aside for the curette by the large majority of physicians. It requires practice to learn how to use the curette without pain or injury to the patient and few physicians can get it.

There is one form of impacted cerumen which I think had better be let alone. I allude to the formation of a wax plug over a perforation of the drum after an otorrhœa has ceased. An attempt to remove it is very apt to cause a return of the otorrhœa.

HYPNOTICS AND ANTIPYRETICS.*

BY WINFIELD WINSEY, M. D.,
OF BALTIMORE.

[Being part of the Report on Materia Medica and Therapeutics.]

During the past year two drugs in particular have attracted a great deal of attention, both typical of a class. Much testimony has been given of their efficacy in their respective fields of therapeutic action, and if further and more extensive trial is to sustain and add to the claims put forth by those who have used them most, a long-felt want for a reliable and unobjectionable hypnotic and antipyretic has been supplied in sulfonal and phenacetine.

Sulfonal was discovered by Prof. Baumann, of Freiburg University. Chemically, it belongs to the group of disulfones. Its formula is: $(C\ H_3)\ 2=(C\ C_2\ H_2\ S\ O_2)\ 2$. It is a whitish, crystalline substance, without taste or odor, very slightly soluble in cold water (1 part in 554), more so in warm water, and still more so in alcohol, ether, etc.

Prof. Kost, of the University of Freiburg, was the first to experiment with this new preparation, which he made upon dogs, and was convinced thereby that it has very decided physiological effects on the nerve centres, the cerebral cortex more especially, and that it is harmless in pretty large doses. No disagreeable after-effects were noticed. They acted as though intoxicated, slept soundly and appeared perfectly at ease when they awoke.

Numerous experiments made upon healthy human subjects fully confirmed what Prof. Kost was led to expect from his experiments upon dogs.

"Sulfonal does not act as a narcotic or intoxicant. It does not stupefy a healthy person who has no desire for sleep, but if a person is actually tired and desires sleep without being able to obtain it, then sulfonal powerfully assists nature in her efforts for sleep by increasing the somnolency until sleep actually sets in. In a word, it is a perfect hypnotic."

Prof. Kost administered this new hypnotic to patients of Bäumler, at the latter's university clinic at Freiburg. He gave it in cases of sleeplessness due to febrile condition, old age, or insanity, to nervous insomnia from some organic disease of the nervous or circulatory systems, or to nervous sleeplessness pure and simple. The results were uniformly satisfactory. It is claimed that sulfonal has no unfavorable effect upon the heart or on the circulation, not even in full doses. The doses in Kost's hands were from 15 to 45 grs., sleep following its administration in from 30 minutes to two hours, and lasting from 5 to 8 hours, patients awaking refreshed, without any untoward symptoms.

Drs. Langaard and Rabow (*Therapeutische Monatshefte*, 1888), speak thus of their experience with sulfonal: "We have not made a very extensive series of experiments with it, but one of us (himself suffering from obstinate sleeplessness, and therefore familiar with all known hypnotics), has been able to make perfectly trustworthy observations of its action upon himself. They agree with Prof. Kost in placing it among a class of innocuous medicines which support the natural want of sleep and produce it when absent."

In numerous cases of nervous sleeplessness they were enabled to obtain refreshing sleep, lasting through the night, with doses of from 15 to 20 grains.

*Read before the Medical and Chirurgical State Faculty, of Maryland, April, 1889.

They also gave it to persons who ordinarily cannot sleep when traveling, with the result of giving them natural and refreshing sleep.

Its freedom from taste and odor and the facility with which it may be given in the food or drink, gives it a great advantage, in this respect alone, over other drugs of its class, particularly in treating the insane, a class among whom such drugs are so frequently required. It is largely among this class of cases, that it has been so extensively tried and won such golden opinions.

From a number of experiments made by Dr. August Cramer with chloral, paraldehyde, amylene-hydrate and sulfonal to determine their influence upon artificial digestion he draws the following conclusions: "Sulfonal does not interfere with the action of the saliva; it has no determinable influence on gastric digestion, and it has no unfavorable influence on the action of the pancreatic juice."

Dr. Carl Oestreicher, assistant to Dr. Jastrowitz's private asylum, "Maison de Santé," at Berlin, published a paper on the action of sulfonal in the *Berliner Klin. Wochenschrift* giving his experience with its administration 128 times, on about 50 patients with the following diseases:

Phthisis pulmonalis,	1
General paralysis,	9
Senile dementia,	18
Mania,	10
Melancholia,	13
Paroniria,	17
Hysterical insanity,	4
Epilepsy,	10
Status epilepticus,	1
Alcoholism,	1
Cerebral exhaustion with irritable heart,	1
Hypochondriasis,	2
Morphine habit,	41
	128

In summing up the result of his observation, Dr. Oestreicher says sulfonal is a hypnotic, harmless in its action and without any objectionable after-effect. Pulse and respiration, as well as the kidneys, at least as far as albuminuria are concerned, are not influenced by it. It had to be given in about the same doses as chloral. During the first days of absence from morphine its effect was about the same as chloral, amylene-hydrate and paraldehyde. It required longer to act but its effect was more prolonged. Many other observers, particularly among the Germans, have borne the highest testimony to the worth of this drug. In our own country Dr. George W. Rachel, (*New Yorker Medizinische Presse*, Nov., 1888,) Dr. Henry M. Wetherill, Jr., assistant physician Pennsylvania Hospital for the Insane, (*Philadelphia Medical and Surgical Reporter*, Oct., 1888,) and Dr. B. Sachs, of New York, (*Medical Record*, Oct., 1888,) have added their testimony in its favor, but to quote their words would be but to repeat what has been already given from the very highest authority abroad.

So little has been said or written against this new drug claiming our attention and so overwhelming has been the evidence in its favor that the following conclusions seem warranted with regard to it:

1st. That it is a true hypnotic.

2nd. That it is easy of administration, being without taste or odor.

3rd. That it is safe, prompt and efficient, without any objectionable after-effects.

4th. That so far its continued use has not shown a tendency to contract the habit. This feature alone, if sustained by still further experience, would entitle it to a pre-eminence above all other hypnotics.

ANTIPYRETICS.

During the past year that class of drugs known as antipyretics have monopolized a large share of thought and attention in the medical profession.

A few years ago in surgery the burning question was, and it largely still is, shall any surgical procedure be attempted without antiseptic precaution and surroundings? So now in medicine the question seems to to be, shall any elevation of temperature in the human body

above the normal be allowed to exist without an attempt to reduce it by the use of an antipyretic? In a word, it has become fashionable to use antipyretics for almost everything that can be considered pyrexia (using the word synonomously with elevation of temperature), whether its cause be accidental, incidental or specific.

The necessity for such an agent having been determined, the question asked is, which of the more generally used of this class of drugs shall be selected?

In this country three of this class of drugs seem to have practically superceded all others, viz., antipyrine, antifebrine and phenacetine. Each has its adherents and some use them in combination.

So far as we have been enable to judge from those best qualified to speak on this point, there seems to be no good ground for this kind of administration, either from a scientific deduction or experience, and we think such practice should be unqualifiedly condemned. It is to this kind of wild empyricism, "that if one will chase a thousand two will put ten thousand to flight," that many medical men *know* so little of the *true* and always *limited* field of usefulness of many drugs and remedial agents which they are in the habit of using.

In the report of this section in 1887, made by Dr. I. E. Atkinson, he went over this subject of antipyretics with a fulness and thoroughness that characterize all that he does. However, so far as drugs of this class are concerned I shall confine what I have to say to phenacetine. What I may have to say with regard to antipyretics as a whole will not be with the idea of being able to present anything new but rather to emphasize and add additional testimony to what was so well said by Dr. Atkinson two years ago.

Phenacetine (para acet. phenatidine) was first described by Hinsberg and Kost in the *Contralblatt f. d. Med. Wissenschaften* of Feb. 26th, 1887.

It is a white, glossy, crystalline powder, perfectly tasteless, melting at 307 F°. and has the composition

$$C_6 H_4 \begin{cases} O\ C_2H_5 \\ NH\ (CO\text{-}CH_3). \end{cases}$$

Dr. G. Kobler, assistant to Prof. Von Bamberg, was among the first to publish his observations upon the actions of this drug. He used it in 50 cases, the principal ofwhich were phthisis, croupous pneumonia, typhoid fever, morbilli puerperal fever, pleurisy and pyemia. It is but slightly soluble in both hot and cold water but readily soluble in alcohol and ether, nor is it more so in the gastric and pancreatic juices. Nevertheless experience shows that in some way it is absorbed and has a powerful antipyretic and anti-neuralgic effect upon the body. Dr. Kobler's trial of this drug led him to the conclusion that the best effects obtained from its use were by giving it in full doses 8 to 12 grains rather than in small doses, frequently repeated, when the fall of temperature is quite rapid and its rise comparatively slow. No collapse, cyanosis or bad effect upon the action of the heart during its administration or following its use were noticed. He claims that in his hands it produced decided euphoria. The fall of temperature after a dose of from 8 to 12 grains was from 3°-6 to 4°-5 F.

Prof Rumpf, of Bonn, (*Berliner Klin. Wochenschrift*, Nov. 23, 1888,) Dr. Rhoaen, of Treben, S. A., Prof. Frank Müller, of Berlin, Drs. McNaughton Jones and Wm. Stokes, of London, and last, but not least, Prof. Dujardin-Beaumetez, of Paris, have borne equally high testimony to the virtues of phenacetine both as an antipyretic and as an analgesic. We probably cannot de better than to quote Prof. Dujardin-Beaumetez who says: "While it is quite as powerful as antipyretic and acetanilide it does not cause the pain in the stomach or the scarlatiniform rash of the former, nor does is give the cyanosis of the latter, however prolonged may be its administration. We have given it for months in doses of 1 to 2 grammes per day. We have never observed any bad effects. We have used it for the relief

of every form of pain (neuralgias, migraine,rheumatic pains,muscular rheumatism, the lightning pains of tabes, &c.,) and always with the best results. Further, in cases of hysteria and hysterical or neurotic pains phenacetine has seemed to produce better effects than the bromides. It calms the excitability of the nervous system, and in some obstinate cases of nervous insomnia it produces sleep. Phenacetine seems, therefore, not only an analgesic but a hypnotic."

So that with this new product of the laboratory it would seem that we are "thrice-armed," like he who "hath his quarrel just." The best authorities, however, all agree that as an antipyretic, phenacetine, like others of its class, has no specific effect upon the continued fevers, of which typhoid is the best representative. That phenacetine is a very valuable addition to our armamentarium seems to have been fully established, and if further experience with its use sustain its present reputation, it will probably supercede all previously discovered drugs of its class.

The fact remains, however, that none of these antipyretic drugs have been shown to have any specific action upon continued fever, of which typhoid is taken as a type, even when the disease has been made to run by their continuous use, an almost or entirely apyretic course. The duration has not been shortened and the mortality not decreased. Certainly not to an extent to make it clearly attributable to their use by keeping down the temperature. Convalescence has been rather prolonged and relapses have, if anything, been more frequent. Even in rheumatism, in which a specific action has been claimed for antipyretic, it seems to be based principally upon the relief of pain due more probably to their analgesic power, as the swelling and redness of the joints have been found to remain and the pain to return if the temperature is not kept down by the continuous use of the drug. This brings us to a very important point in the discussion of antipyretics, viz., the use of water, principally, in the form of baths, either cold, hot, or tepid, by many of the most advanced thinkers and clinical observers now considered to be the antipyretic *par excellence*. The testimony in favor of this method of treating the continued fevers, is now so abundant and available that we think it should command our thoughtful and serious attention.

Dr. Atkinson brought this matter to our attention two years ago with such fulness and emphasis that it would not have been Utopian to have expected it ere this, to have borne fruit among us; but so far we have neither seen nor heard of it.

Dr. Donald MacAllister, who delivered the Croonian lectures, five in number, before the Royal College of Physicians of London, in June, 1888, devoted the whole course to the subject of Antipyretics (*British Medical Journal*, June, July, 1888). Dr. MacAllister went over this subject with a thoroughness worthy of its importance. He discussed not only the most important antipyretic drugs, but the different factors that go to make up that seemingly simple but really complex condition known as fever, the principles of which, in a number, if not all, of those diseases of which it is an important and prominent symptom, is an infectious micro-organism.

Whilst claiming much benefit from the use of this class of drug, particularly antipyrine, he pratically admitted that their use was only palliative, not curative.

Turning to the use of water as an antipyretic, Dr. MacAllister, while seemingly having no personal experience to offer with regard to this method of treatment, quotes Drs. Coupland, Cayley, Naunyn, Küchenmeister and others, in favor of it.

The first three of these are converts to it, particularly Naunyn, who had done much to overthrow the theory that pyrexia was the chief enemy to be combatted in typhoid fever. Naunyn says: "I consider it proven as a matter of statistics, that the cold water treatment of typhoid shortens the individual cases and above all, reduces the mortality from 15 or 20 to 5 or 10 per cent." So with Von Ziemssen, whom all will concede to be an authority and who has

written much in favor of other methods of treatment. He has been brought to the point where he can say that in the treatment of typhoid, hydrotherapy deserves to be placed in the front rank, "since it contains all the requisites of a curative method." Von Ziemssen has the advantage in speaking of this method, not only from observation of its effects upon others, but from personal experience. He says: "The action of cold and lukewarm baths may be expressed somehow as follows: the bath cools the blood of the feverish patient, at first at the periphery, and next by the circulation of the cooled blood from the skin to the interior of the body, the internal organs are affected. Whether the circulation of the cooled blood has immediate effect on the central nervous system is not proved, but I believe, from a personal experience while suffering from a severe typhoid, in 1884, when I was repeatedly bathed; that the desire for sleep setting in immediately after the bath, and which is its first effect, is to be laid to the cooling of the brain. This action, I must claim, is unspeakably refreshing." "There is," he says, a stimulation of the central nervous system, the result of which is a quiet sleep, a clear sensorium, a refreshed look, easier movements and a desire for food. There is not only a desire for food, but it is better digested and assimilated." A matter of the greatest importance in such an exhausting disease. "The secretions are increased by the bath; that is, the urine, the saliva, the perspiration, the tears. The tongue becomes moist, the eye clear, the surfaces soft. The manner, duration and temperature of the bath will vary according to the indications in the special case. The full bath must be considered the most effective, best applicable and most pleasant form of hydrotherapy."

Von Ziemssen regulates the temperature of the bath according to the constitution of the individual, ranging usually between 18to24 R.°, 72to86 F°. The mean duration of the bath being from 15 to 20 minutes and the frequency according to the circumstances surrounding each individual case.

It will be seen that Van Ziemssen as also Nunyn and others, whilst following the principle laid down by Brand do not follow his rigid and unvarying practice of temperature, length of time and frequency of the baths. This is only in keeping with a general but varying law underlying all great principles.

The popular, and to an extent at least, professional, prejudice against this so-called cold water treatment, is based upon the fear of what is called 'taking cold.' On this point Dr. MacAlister says: "The fear that pulmonary congestion might be caused by cold bathing is not justified either by experience or physiology; on the contrary, the pulmonary tissues were thus more freely opened up, bronchial and vascular obstructions are removed, and the signs of partial lobular collapse and engorgement usually done away."

I am conscious of having exceeded my proper limit in dealing with only a part of the report belonging to the section of materia medica and chemistry, but the importance of the subject, the conflict of opinion as to what constitutes the best, or perhaps better, the true antipyretic treatment of disease, particularly typhoid fever, which annually carries off hundreds, if not thousands, of the flowers of our youth, must be my apology for dwelling to such an extent upon and trying to emphasize a method of treatment that promises so much better results than that generally adopted among us.

With the Maryland University Hospital, the City Hospital, Bay View Asylum and soon to be the Johns Hopkins Hospital, abundant opportunities for the trial of this method of treatment should be at our command. Baltimore, which was the first city in this country to inaugurate a line of steam railway, the first to receive a telegraphic message, would be but sustaining her established reputation, should she be the first to test, thoroughly and systematically, this method, and if the result justifies, put upon an enduring basis in America the hydro-antipyretic treatment of typhoid fever and other like dangerous diseases.

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BALTIMORE, OCTOBER 5, 1889.

Editorial.

SEMI-ANNUAL MEETING OF THE MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.—At the meeting of the Medical and Chirurgical Faculty, held in April last, it was decided to hold semi-annual meetings of the Faculty in the most prominent interior towns of the State in consecutive order. The committee having in charge the plan of arrangements for this meeting has decided to hold the first of these semi-annual meetings in Hagerstown on the second Tuesday and Wednesday in November next. The profession throughout the State is cordially invited to attend this meeting. We are informed that a number of papers have already been pledged for this meeting and that the programme will provide for a most instructive and entertaining gathering of the profession upon the occasion mentioned. This programme, with plan of arrangements, will be published in a subsequent number of the JOURNAL.

We are instructed to say that every member of the Faculty who may desire to read a paper before this meeting is requested to send the title of his paper by October 15th to the chairman of the executive committee, Dr. G. H. Rohé, or to the chairman of the committee of arrangements, Dr. T. A. Ashby, in time for announcement in the programme. The meeting is designed for the benefit of the profession in this State, and a co-operation upon the part of the physicians is desired. Further information concerning this meeting will appear in our next issue.

THE STERILIZATION OF FECES.—The question as to the definition and relative merits of the different disinfectants and germicides has for the last few years been receiving increased attention, and as this is a question of an exceedingly practical and important nature the latest good work on the subject should be carefully studied and tested. This last piece of work in this direction has been taken up by Dr. Charles J. Foote, of New Haven, who, in the *American Journal of the Medical Sciences* for October, gives us the result of his experiments in the very unpleasant work of sterilizing feces. Even if the result of this work had not been so conclusive as it is, still for a man who would spend weeks and months over putrifying mixtures of feces and urine working in the cause of science, no reward is too great.

His purpose was to determine whether corrosive sublimate was a good disinfectant for feces, and, if not, whether this

was due to the formation of inert, insoluble compounds of mercury with the feces. Also he wished to determine the relative value of certain other disinfectants used for this purpose. To this end he made standard solutions of different strengths, mixed them with a fixed quantity of feces and made cultures from the result.

As is always the case in the studies of such a subject, he developed many points of general practical interest, and one was that sulphate of iron which is often regarded as a good deodorant, developed an odor considerably more disagreeable than that of the mixture of feces with sterilized water. Almost all the agents used caused in a few days sickening odors which were not putrefactive since the mixtures were perfectly sterile. Chloride of lime and carbolic acid destroyed all fecal odor.

His conclusions were: "The best disinfectants to use are the bichloride with hydrochloric acid, then bichloride with potassium permangemate and the chloride of lime.

Five per cent. solutions of carbolic acid and two-tenths per cent. solutions of the bichloride are unreliable, even when used in the proportion of one pint to every 100 c.c. of dejection.

Emphasis seems to be laid on the thorough disintegration of the fecal matter by stirring with the disinfectant, and on the necessity of allowing the mixture to stand four hours at least before employing.

For continued use the bichloride solutions would injure lead pipe, while if used for a few days only probably no injury would result. For long-continued use, where the dejections are thrown into a water-closet, chloride of lime is undoubtedly the most available disinfectant.

Solutions of chloride of lime should be kept tightly corked and should not be used after they are one week old.

Palatable Prescriptions.—Any one who will look back at the medicine of fifty years or more ago will hardly deny that we have advanced in the prescribing and dispensing of medicine. In those days of poly-pharmacy, shot-gun prescriptions were in vogue and the poor patient forced to swallow the nauseous draught often preferred suffering to the medicine and got well in spite of the doctor. It is hard to say what exactly has brought about an improvement in our prescribing. Competition among physicians is great, and, all things being equal, the children being the ones doomed to swallow the bitter doses, and often the ones with influence enough in the family to decide with that peculiar instinct which physician they preferred, the doctors began to see that a little sweetness in manner and dose would make them popular. Or perhaps manufacturing druggists, also competing for business, have so endeavored to make their medicine palatable that physicians feel compelled to use them to the older drugs. At any rate it must be confessed that homœopathy has been of great service in simplifying our prescriptions. Who now, for instance, thinks of giving a child a large liquid dose containing a dozen different ingredients when one drug in powder, pill or tablet and concealed in a little sugar is taken by the average child as if it were candy. The laity naturally thinks that homœopathy and small palatable doses are identical, and so long does it take a scientific fact to take root in the public's mind that bad doeses and regular physicians are put together as necessary accompaniments.

A more careful study of the newer

materia medica and an occasional perusal of lists of new remedies from reputable druggists will keep the practitioner up with the times and cause his medicines to find favor in the eyes (and mouths) of his patients as well as cure them.

Johns Hopkins Medical Notes.

The Johns Hopkins Training School for Nurses, a prospectus of which was noticed in a previous issue, will be inaugurated on Wednesday, October 9th, at 3 P. M.. Addresses will be made by the president of the hospital, Mr. Francis T. King; by the director, Dr. Henry M. Hurd, and by the head of the training school, Miss Isabella Hampton. Miss Hampton is a graduate of the Bellevue Training School of New York, the pioneer training school of this country. As one of the best graduates she was awarded a trip to Rome and served two years in the hospitals there which especially excel in their trained nurses. For the past three years she has been at Cook County Hospital Training School near Chicago.

After the exercises five o'clock tea will be served.

Miss Hampton will open the school with eighteen probationers.

The medical school will not be opened yet, but in the hospital during the winter three weekly clinics will be held in medicine by Prof. Osler, in surgery by Prof. Halstead and in gynecology by Prof. Kelly. These clinics will be open to members of all medical schools and to all practitioners of medicine.

The hour has not been decided.

The number of patients in the wards and dispensary are increasing., statistics of which will be given later.

* * * * * *

On the University side President Gilman's plan of lectures is altogether post-graduate in character. Professors Welch, Osler, Halstead, Councilman, Kelly and Doctors Abbott, Hurd and Billings will deliver didactic lectures on their special branches throughout the winter. The manner of admission will be announced later.

The hospital will publish a small pamphlet, much like their "University Circular," which will contain announcements of medical appointments, lectures, courses, etc. This will be generally distributed.

In addition to this there will be an annual report much like the reports from Guy's and other English hospitals.

Reviews, Books and Pamphlets.

Annual of the Universal Medical Sciences. A yearly Report of the Progress of the General Sanitary Sciences throughout the World. Edited by Chas. E. Sajous, Lecturer on Laryngology & Rhinology in Jefferson Medical College, Philadelphia, etc., and Seventy Associate Editors, assisted by over Two Hundred Corresponding Editors, Collaborators, and Correspondents. Illustrated with Chromo-lithographs, Engravings and Maps. Vols. I, II, III, IV and V. Philadelphia and London: F. A. Davis, 1889.

This, the second edition of the "Annual," although much like the first part in many respects, far exceeds it in many particulars. The new features which have been added are the dates, number and volume, to each reference mentioned; the weights, measures, &c., have been modified to suit this country, and to each volume a separate index has been prepared in addition to the copious index at the end of the fifth volume.

The work is of such magnitude that space will not allow of a careful, critical opinion which it deserves. In almost every article it is seen that the editor has done his work well, and has incorporated the varied literature of the most recent date. An excellent chapter is the first one on diseases of the lungs, and particularly is what we know about consumption, brought out in a clear light. Many articles are by two authors, one of which probably lends his name only,

while the other does the work. This probably has the double advantage that the younger man does the work under the careful supervision of the older man of experience. The editor and publisher are to be congratulated on giving to the profession such an excellent work of reference.

An Introduction to Pathology and Morbid Anatomy. By T. Henry Green, M. D. Sixth American from the Seventh English edition, revised and enlarged by Stanley Boyd, M. B., B. S., London, F. R. C. S., Eng. Illustrated with 167 fine engravings; Philadelphia: Lea Brothers & Co., 1889. Price $2.75; pp. 539.

Green's Pathology has for such a long time held sway in this country, and probably in Europe, as the student's text-book, that it is no wonder a new edition has appeared. Indeed, it is a little surprising it did not appear long ago. Unfortunately, as the editor says in the preface, lack of time prevented some additions and changes. The chapter on fevers is new; also that on tuberculosis is much changed. Much of the book, however, is not in an attractive form, and is hardly up to what a student's text-book of pathology should be. That part touching on bacteriology is very hurriedly passed over. In fact, the book shows haste and proper care in preparation. The typography of the book is excellent and some of the illustrations are good. The chapter on tumors would be better, with more illustrations.

Wood's Medical and Surgical Monographs. Volume III, Number 2. New York; William Wood & Co., 1889. Contents: "The Treatment of Syphilis at the Present Time," by Dr. Maximilian von Zeissl. "The Treatment of Inebriety in the Higher Classes," by James Stewart, B. A. "Manual of Hypodermic Medication," by Drs. Bourneville and Bricon.

Volume III, Number 3, Contents: "Congestive Neurasthenia, or Nerve Depression," by E. G. Whittle, M. D. "The Art of Embalming," by B. W. Richardson. "The Etiology, Diagnosis and Treatment of Tuberculosis," by Dr. H. Von Ziemssen. "Psycho-Therapeutics in Treatment by Hypnotism," by Dr. C. Lloyd Tuckey. "Sexual Activity and the Critical Period in Man and Woman," by Dr. Louis M. Séré.

Although these two numbers contain a variety of articles, still, as a whole, they are not especially remarkable, except for the fact that many and possibly all of them have already appeared before they were printed here. In the first number Stewart's Inebriety is by far the best article. That on hypodermic medication is useful as a work of reference. Zeissl's Syphilis contains nothing very startling.

In the Second number, Whittle's and von Ziemssen's articles are the best, and they have already been noticed in these columns in the form in which one of them originally appeared and from which these articles in the monograph were taken. The Art of Embalming is rather a peculiar subject to offer to physicians.

On Disordered Digestion and Dyspepsia. By Frank Woodbury, A. M. M. D., Fellow of the College of Physicians of Philadelphia, etc. Detroit: George S. Davis, 1889. [The "Physicians' Leisure Library."] Pp. 82. Price 25 cts.

This is a very readable little review of what we already know about dyspepsia. The author is evidently well up on the subject.

Syphilis of the Nervous System. By H. C. Wood, M. D., LL. D. Detroit: George S. Davis, 1889. [The Physicians' Leisure Library.] Pp. 135. Price 25 cts.

The cover of this book is quite gaudy with its abundant ornamentation of gilt and white. The bird or animal in the upper corner resembles unpleasantly a parrot—a bird that repeats what others say without understanding what he has said. In this case the author

has repeated what others have said, but he has done it so much better that there is no objection to hearing him. In fact, it is one of the best books of the series, and deals thoroughly with a subject which has too often been dealt with in a superficial manner.

Cyclopædia of the Diseases of Children, Medical and Surgical. The articles written expressly for the work by American, British and Canadian authors. Edited by JOHN M. KEATING, M. D. Vol. II. Illustrated. Philadelphia: J. B. Lippincott Co., 1889. Pp. 1,066. Price $5.00.

This volume differs very slightly from the first. The articles are written especially for the work and many of them are very short. This volume contains about thirty more articles than the last volume, and on the whole they do not seem to come up to those in the first volume. There is too much evidence of an endeavor to cover ground in the number of the shorter monographs, so that the disease or deformity is simply described without diagnosis and treatment. Many of the subjects, too, do not seem to belong to the department of pediatrics, and in fact, some of the illustrations are from old age. The chapters on syphilis and rachitis are very good, and that on myocarditis are illustrated with fairly good plates. The lung troubles are well worked up, but tracheotomy and intubation are not written by the best authorities on that subject. For such a small member, the nose has received a great deal of attention. On the whole, then, this volume, while not quite up to the first in literary merit, is exceedingly valuable as a guide and book of reference, and the whole set will undoubtedly form the best work on children's diseases in any language.

Inebriety, its Etiology, Pathology, Treatment and Jurisprudence. By NORMAN KERR, M. D., F. L. S. Second edition; London: H. K. Lewis, 136 Gower street, W. C., 1889. Pp. 471. Price 12s. 6d.

The 2nd edition of this well-known book appears with revisions and additions. The author, who is one of the leading authorities on this subject, has written a very valuable book on inebriety, from a medical, legal and moral aspect. The much discussed question of intemperance he has wisely left untouched. He treats it as a disease often allied to insanity, gives the different forms, etiology and an excellent treatise on the treatment which very wisely takes up about one-half of the book. The medico-legal aspects of inebriety form an important chapter.

A Manual of Minor Surgery and Bandaging for the Use of House-Surgeons, Dressers and Junior Practitioners. By Christopher Heath, F. R. C. S. Ninth edition. Philadelphia: P. Blakiston, Son & Co., 1889. Pp. 361. Price $2.00.

This popular little manual hardly needs an introduction. It has reached its ninth edition, and while very compact in form, it covers the whole subject very satisfactorily. It is pleasing to see that mysterious instrument, the stomach-pump, illustrated and described. It is spoken of in lectures and clinics as such an important instrument in emergencies, and yet few have an opportunity to become acquainted with its use. The work is fully illustrated.

A Manual of Instruction for giving Swedish Movement and Massage Treatment. By PROF. HARTVIG NISSEN, Director of the Swedish Health Institute, Washington, D. C. With 29 original wood-cuts. Philadelphia and London: F. A. Davis, 1889. Pp. 128. Price $1.00.

A book of this kind as an instructor is of very little value, but it is useful to those physicians who think that Swedish movement and massage to be a part of quackery, since it shows its value from an anatomical and physiological standpoint. The work itself gives in the merest outline the manner in which the treatment is given and this is illus-

trated by a series of wood-cuts. The sentences are very short, and often remind one of Alfred Jingle, and in places the English is a little peculiar. In spite of this the book is an excellent one for reference, since it is probably one of the few books on Swedish movement, as distinguished from massage in the English language. This writer does not show very good taste in having that much abused word "Professor" before his name. His titles do not seem to justify it.

The Urine, the Common Poisons and the Milk; Memoranda, Chemical and Microscopical, for Laboratory Use. By J. W. Holland, M. D., Professor of Toxicology, Jefferson Medical College of Philadelphia. Illustrated. Third Edition. Revised and much enlarged. Philadelphia: P. Blakiston, Son & Co., 1889. Pp. 84. Price $1.00.

This is an extremely practical little book, and the fact that it has reached the third edition, when so many works on similar subjects exist, shows it has the merit of popularity. The part on urinary analysis is by far the best, although that on milk examination is very useful. The book is in a convenient form for reference in a laboratory and it is printed on one side only, for convenience in making notes.

A Text-Book of Human Physiology, including Histology and Microscopical Anatomy; with Special Reference to the Requirements of Practical Medicine. By Dr. L. Landois, Professor of Physiology and Director of the Physiological Institute, University of Greifswald. Third American, translated from the Sixth German Edition. With Additions by William Stirling, M. D., Sc. D., etc. With Six Hundred and Ninety-two Illustrations. Philadelphia: P. Blakiston, Son & Co., 1889. Pp. xxx–33 to 974. Price $6.50.

Those familiar with the German edition of Landois' Physiology will be glad to see such an excellent translation of the original reach its third edition. It would be almost impossible to give in a short space, any satisfactory review of such a comprehensive book, but it is perhaps not too much to say that it is by far the best physiology in English for the graduate and scientist. For the undergraduate such a book is only confusing. Numerous illustrations serve to elucidate the text. This edition is more convenient in being in one volume.

Essentials of Physiology, arranged in the form of Questions and Answers, Prepared especially for Students of Medicine. By H. A. Hare, B. Sc., M. D. Second Edition. Thoroughly revised and enlarged. Philadelphia: W. B. Saunders, 1889. Pp. 193. Price $1.00.

This is as good as the ordinary "cram-quiz," and perhaps a little better. It seems to cover the ground very thoroughly, the work being in the form of questions and answers, both of which are as concise as possible. It has had a successful sale in a short time, a thing which has called forth a second edition.

A Manual of Chemistry for the Use of Medical Students. By Brandreth Symonds, A. M., M. D., Assistant to Roosevelt Hospital, Out-patient Department, etc. Philadelphia: P. Blakiston, Son & Co., 1889. Pp. 154. Price $2.00.

This Manual seems to be for the use of students preparing for examination. Everything is stated in a concise but clear manner. It is, however, an attempt to get too much into a small hand-book. The chapter on urinary analysis is not sufficiently elaborate. The chapters on air and ventilation belong about as well to works on physiology. The price of the book is very high and its general appearance below that of books generally published by the firm.

The Nervo-Vascular System. Three charts arranged by W. Henry Price

and S. Potts Eagleton, and examined and approved by John B. Deaver, M. D., Demonstrator of Anatomy, University of Pennsylvania. Part I, the Nerves; Part II, the Arteries; Part III, the Veins. Philadelphia: F. A. Davis, 1889. Price 50 cts.

Such charts can only be used with profit in a lecture-hall or dissecting room, where they serve as works of easy reference. For the student who preparing for a final in anatomy such a chart hung on his bed-room wall and consulted during the various stages of toilet will yield in a short time an incredible amount of knowledge in anatomy. The price is very cheap.

Index-catalogue of the Library of the Surgeon-General's Office, United States Army. Authors and Subjects. Vol. X. O to Pfutsch. Washington: Government Printing Office, 1889.

This volume of the index-catalogue contains a list of all known medical periodicals in the world, covering over two hundred pages of this large book. Under the sub-head "Baltimore" are found eleven journals and magazines; and under "Maryland" are four journals.

Monopolies and the People. By Chas. Whiting Baker, C. E., Associate Editor of "*The Engineering News.*" New York and London: G. P. Putnam's Sons, 1889.

This is one of a very excellent series of manuals published under the title of "Questions of the Day." In it the author, who seems most sincere in his labor, defines clearly a monopoly and a trust, and discusses the monopoly in manufacturing industries, in mineral wealth, in transportation and communication, in municipal affairs, in trade depending on the government, and in the labor market. He discusses the theory of universal competition, its evil and good; plans for remedying the evils of monopoly and plans for its control. Without going further into a book, a review of which should hardly be found in a medical journal, it remains only to be said that, written as it is in a clear, comprehensive yet elementary style, it makes clear many points on the subjects of trusts and monopolies, and is well worth reading.

Scribner's Magazine for September and October, 1889.

A series of rail-road articles has been running through *Scribner's Magazine* for many months, yet in no article is the sanitary condition of the car touched upon. In the first place, no writer has explained how to improve the condition of the Pullman, Wagner, or other so-called palace cars. They are overheated at all seasons, rarely ventilated, stuffy and excellent breeders of disease. The sleepers consist of a series of so-called beds or berths, with a cold draught at the feet and a sweat-box at the head, and a germ-laden curtain to shut off the aisle. The water-closets are so situated at the end and at the side of the car, that when the poor passenger is not inhaling smoke he is taking in foul air from these closets. Although so many improvements have been made in brakes, coupling, vestibules, etc., the problem of heating by steam is scarcely touched upon, while such devices as the Morton Safety Heating Company Manufactury enable a train of cars to be well heated with stored heat from the engine with ease and safety. Scribner's Magazine should now have a series of railway articles written by the travelers to show the avoidable defects of railroad travel.

Septic Poisoning in Early Life. By Henry Dwight Chapin, M. D., Professor of Diseases of Children, at the New York Post-Graduate Medical School, etc. Reprinted from *N. Y. Medical Journal.*

Concussion of the Spine in its Medico-Legal Aspects. By Henry H. Smith, M. D., LL. D., of Philadelphia. The Medico-Legal Aspect of Concussion of the Spine. By Herbert Judd, of Philadelphia. [Reprint.]

A Year's Record of Seventy-five Cases of Abdominal Section. By B. Curtis Miller, M. D., Charleston, W. Va. [Reprinted from the "American Journal of Obstetrics and Diseases of Women and Children."]

Spinal Caries; Operative Treatment; Laminectomy. By DeForest Willard, M. D., of Philadelphia.

A Question in Hepatic Surgery, with an Illustrative Case. By Thos. W. Kay, M. D., of Scranton, Pa. [Reprint.]

The Management of Pulmonary Phthisis. By Karl von Ruch, B. S., M. D., of Asheville, N. C. [Reprint.]

Infant Feeding. By C. W. Earle, M. D.

Antiseptic Oestetrics. By C. W. Earle, M. D.

Retained Debris as one of the Causes of Puerperal Fever; The Intra-Uterine Douche and Curette. By C. W. Earle, M. D.

Cephalœmatoma of the New-Born. By C. W. Earle, M. D.

Report of a Case of Stricture of the Rectum, the Probable Result of a Specific Vaginitis. By Lewis H. Adler, Jr., M. D., Philadelphia. Reprinted from the "Medical and Surgical Reporter."

The Fatality of Cardiac Injuries. By H. A. Hare, M. D.

On the Diagnosis of Pregnancy in the Early Months. By Llewellyn Eliot, M. D., of Washington, D. C.

The Treatment (not preventive) of Puerperal Fever. By C. W. Earle, M. D.

Address of President C. W. Earle, Delivered at the Thirty-Ninth Annual Meeting of the Illinois State Medical Society, May 21, 1889. The Responsibilities and Duties of the Medical Profession regarding Alcoholic and Opium Inebriety.

Observations in Vienna: The General Hospital; Billroth, Carl Braun, Bandl and others. By Charles W. Earle, M. D., Chicago, 1888. Reprint.

The Influence of Sewerage and Water Pollution on the Prevalence and Severity of Diphtheria. By Charles W. Earle, M. D., Chicago. Reprint. 1888.

On the Healing of Aseptic Bone Cavities by Implantation of Antiseptic Decalcified Bone. By N. Senn, M. D., Ph. D. Attending Surgeon to the Milwaukee Hospital, etc. Reprint. 1889.

The Effect of the Entrance of Air into the Circulation. By H. A. Hare, M. D., Demonstrator of Therapeutics and Instructor in Physical Diagnosis in the University of Pennsylvania. Reprint from the *Therapeutic Gazette* for September 16, 1889. Geo. S. Davis, Detroit, Mich., 1889.

Boric Acid and Oil of Cacia as Wound Dressings. B. David Prince, M. D., of Jacksonville, Ill.

The Hedge Thorn Poison. By David Prince, M. D.

Table of Results of Experimental Tests of the Value of Antiseptics. By G. V. Block, M. D., D. D. S., of Jacksonville, Ill.

A Year's Experience, with Apostoli's Method, with Report of Cases. By A. Lapthorn Smith, B. A., M. D., of Montreal.

Expression in the Treatment of Trachoma. By A. E. Prince, M. D. of Jacksonville, Ill.

Pelvic and Abdominal Drainage. By David Prince, M. D., of Jacksonville Ill.

Miscellany.

A Foreign Correspondent.—Dr. Jos. F. Perkins, in a personal letter from Paris to the editor, after referring to his visit to the *British Medical Journal* and his trip to the "Land of the Midnight Sun," adds what may be of interest to the medical world, as follows:

"Immediately after the meeting I hastened across the Channel to Berlin to meet Prof. Bridge, of the Rush Medical College, Chicago, and with him visited quite a number of institutions. The season, unfortunately, was the time the prominent surgeons were away, but their assistants were very cordial, and my visit decidedly more satisfactory than when here before. The visit to Koch's laboratory was specially interesting to me, and the "Museum Sanitary" adjoining." It seems that Koch has turned his attention more now to sanitary matters. I found Sir Morrell Mackenzie very cordial and was entertained at his home. Since his treatment of the late Emperor and his new title, etc., there has been a change in the staff of his hospital, or rather since I was here last. Drs. Semple, Whistler and Woakes are not on the list, and Dr. Mackenzie himself seldom enters the institution—a great disappointment to the many students that attend the clinics of throat surgery. A number of visits were paid to the different institutions, according to the advertised operations. The *British Medical Journal* publishes every week, a memoranda of the different hospitals, giving the hour for operations and character, whether for eye, throat, &c., and at the building is posted up at the entrance the specific operation itself, with surgeon's name. It also publishes meetings and lectures that are to be held during the week. I found the above of great help."

The Treatment of Fractures of the Neck of the Femur.—In so far as functional restoration is concerned, the routine treatment of fracture of the neck of the femur is probably not more successful than was the case a hundred years ago.

The common teaching upon this subject is that an intra-capsular fracture is never healed by bony union, that treatment in the hope of obtaining neck union is useless, but that such treatment should be always employed because the differential diagnosis between intra and extra-capsular fractures cannot be made with certainty, and if the injury is entirely or even partially extra-capsular good results may be confidently expected. If, after five to eight weeks' treatment with sand-bags and extension, there is no union, this is proof that the fracture is intra-capsular, and all further attempt to restore the continuity of the bone should be abandoned as hopeless; the patient should be taken from bed, and the further attention of a medical man only required for his supervision of hygiene and dietetics. It is furthermore taught that intra-capsular fracture is almost exclusively found in the old and debilitated, that non-union is due to the imperfect vascular supply, and the dilution of the plastic lymph by the synovial exudate, and that crepitus and abnormal mobility are the diagnostic signs of chief moment.

A very brief dissection will demonstrate that an intra-capsular fracture is not necessarily intra-articular; in fact the arrangement of the synovial sac is such that the break may be entirely within the capsule and entirely without the articulation.

Examination of hospital records shows that the injury, though much more common in the aged and infirm, is not rare in comparatively young and robust individuals. Humphrey has proven that the accepted view in regard to the senile change in the angle of the neck of the femur is not correct, no alteration taking place in this angle after growth is completed.

Since the fracture may be impacted, or if not impacted, since the bone extremities are propably sharp and jagged, it is most important that rough manipulation should be avoided. Measurement gives the most positive indication of the injury. It must be borne in mind that Night, Genson and others, have shown

that it is not rare to find the two legs differing in length. An error due to such symmetry should be detected by taking the distance from the top of the trochanter to the external malleolus, after making the ordinary measurement to show shortening. Normally Nélaton's line, from the tuberosity of the ischium to the anterior superior spinous process of the ilium, marks the upper border of the trochanter major. All complete or impacted fractures will show displacement of the upper edge of the trochanter major beyond this line; this displacement being commensurate with the amount of shortening.

The fact that impacted fractures in this region, if not disturbed, usually unite, is most significant. The only mechanical difference between these fractures and the non-impacted ones is that we have in the former immobilization and retention of the fragments.

Experiments upon animals show that when the fragments are approximated and immobilized by pins, bony union takes place. Attempts have been made to accomplish this result in man by plaster-of-Paris bandages, but such dressings, applied with the utmost care, invariably become loose after a few weeks. Senn, guided by his experimental work, advised in selected cases that the fragments should be drilled and pinned together with bone nails. This rather heroic remedy did not however commend itself to the profession at large. Senn's latest paper upon the subject suggests a plan of treatment not only founded upon sound mechanical principles, but safe and practicable in application. It is adapted to both impacted and non-impacted fractures; to the former for the purpose of preventing separation of the fragments, to the latter with the idea of producing the same conditions which are present in impacted fracture.

Briefly, the method consists in swathing the whole of the injured leg, the opposite leg down to the knee, the pelvis, and the trunk as far as the cartilage of the eighth rib in plaster-of-Paris bandages. Over the trochanter major of the affected side there is left a fenestrum; incorporated in the plaster, and with a convex sweep over the fenestrum, is a steel bar. In the convexity of this bar fits a set screw which being wound down forces a stiff well-fashioned pad against the trochanter major in the direction of the axis of the neck of the femur. In applying the plaster the patient stands on a stool upon the sound leg, supported on both sides. An assistant either holds the fractured leg in fixed position, or overcomes deformity by traction, as the fracture is impacted or free. After the plaster is thoroughly hardened, even pressure is kept up by the pad, the latter being temporarily removed as often as friction and bathing of the skin beneath it seems to require. The dressing is not taken off for from eighty to a hundred days, when the patient is cautioned not to bear his weight upon the affected limb for an additional two or three months.

This treatment naturally commends itself, It is further reinforced by a report of eight successful cases. In seven, function was almost entirely restored.

The writer has made many examinations of old ununited fractures at the neck of the femur. The disability has been, in the majority of cases, absolute, the injured leg acting simply as an encumbrance. Some of these cases had still a fair prospect of ten to twenty years of life.

The method of treatment advocated by Senn is so readily applied that it deserves a thorough trial at the hands of the profession. If its results are as successful as the report of his cases would lead us to infer, he has conferred a greater boon to surgery in this, than in all his previous investigations.—*University Medical Magazine.*

The sanitary condition of Los Angeles, Cal., is said to be far from perfect.

Medical Items.

Another bogus medical college has been unearthed in New England.

Dr. E. Oliver Belt has removed to 1313 H street, N. W., Washington, D. C.

Typhoid fever is epidemic at Neguanee, Mich Over 100 cases are reported.

The State Board of Health met last Wednesday and did the usual amount of work.

Dr. Hiram Woods delivered the inaugural at the opening of the Woman's Medical College last Wednesday.

A steamer in quarantine at Baltimore has on board several men with fever, the nature of which has not been diagnosticated.

The Medical Societies will begin work this month. The Clinical Society met last night and elected officers for the ensuing year.

A new medical college has been started in Glasgow, and those who are not professors, but think they ought to be, are very mad about it. This is not unlike the Johns Hopkins.

The American Public Health Association will hold its seventeenth annual meeting, at Brooklyn, N. Y., Tuesday, Wednesday, Thursday and Friday, Obtober 22, 23, 24, 25, 1889, at the Brooklyn Institute.

Dr. John R. Winslow has been appointed Associate Professor of Physiology at the Woman's Medical College, in place of Dr. Geo. J. Preston, who resigned. Dr. Pierce Kintzing takes Dr. Winslow's place as Assistant Demonstrator of Chemistry.

With the issue of this week Dr. H. A. Hare takes charge of the *Medical News*. While it will be in no way inferior to what it was under Dr. Hay's administration, still the Messrs. Lea Brothers, having found it such an expensive undertaking that to keep up a weekly scientific paper of such a high character and limited circulation that they have decided to let the *News* contain articles of more general interest to the practitioner throughout the country and thus secure a greater circulation for a periodical which will advertise their excellent publication, while the *American Journal of the Medical Sciences* will contain the more scientific work for the few who read it.

The following papers have been promised for the meeting of the Tri-State Medical Association, to be held at Chattanooga, Tenn.: Demonstrations with the Microscope--Prof. James A. Reeves, Chattanooga. Stricture—Prof. Daniel H. Howell, Atlanta, Ga. ————————Dr. F. B. Sloan, Cowan, Tenn. A Case of Typhoid Fever with Subnormal Temperature and Subnormal Pulse—Dr. A. S. Wiltse, Kismet, Tenn. A Plea for Medical Education of Females—Dr. Chas. P. Gordon, Dalton, Ga. Choleo-Cystotomy, with a Case—Dr. E. E. Kerr, Chattanooga. Report of a Case—Dr. Wm. T. Blackford, Graysville, Ga. ————————Dr. W. C. Maples, Bellefonte, Ala. Physiology of the Heart and its Valves—Dr. W. L. Gahagan, Chattanooga. Relation of the Specialist to the General Practitioner—Dr. F. W. Skillern, Pikeville, Tenn. Some Points in the Diagnosis of Skin Diseases—Prof. E. A. Cobleigh, Chattanooga. Imaginary Foreign Bodies in the Throat—Dr. Max Thorner, Cincinnati, Ohio. ————————Dr. J. B. Cowan, Tullahoma, Tenn. Antiseptic Midwifery—Prof. F. W. McRae, Atlanta, Ga. Other papers of interest will be presented. Prof. Robert Battey, of Rome, Ga., has promised to be present. This meeting will be held in response to the following call issued by a number of societies in Alabama, Georgia and Tennessee:

"The members of the medical profession in Alabama, Georgia and Tennessee are requested to meet in Chattanooga on the third Tuesday in October, for the purpose of forming a Tri-State Medical Association. All will be admitted to the meeting of the Association, but the membership will be restricted to graduates of regular Medical Colleges in good standing."

A constitution will be adopted at this meeting which will regulate all matters pertaining to the society.

The meeting will be called to order at 10 A. M. Tuesday, Oct. 15th, at the Chamber of Commerce. The sessions will continue two days.

Original Articles

SAPREMIA AND SEPTICEMIA DURING THE PUERPERAL PERIOD.*

BY WILLIAM S. GARDNER, M. D.

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All the standard works on obstetrics and nearly all the works on general surgery speak of sapremia and septicemia in such a confused and general way, that any one who does not see more of them than usually falls under the observation of the general practitioner, is not able to distinguish them from each other. It is true that both in etiology and symptomatology, they have many points of similarity; but there are also wider differences by which it is no very difficult matter to distinguish between them; and it is time that this should be done. The time for calling every rise of temperature subsequent to parturition puerperal fever is gone. It is of course not practicable, in a paper like this, to attempt to show the differential points of all the fevers of the puerperal period, and it is sincerely hoped that this attempt to draw the lines between two of the diseases of this period will not add confusion to what is now little short of chaos.

I do not believe in an essential puerperal fever. Septicemia and sapremia are the two diseases most frequently spoken of under that title. I believe that these diseases are the same as when they follow any other accessible solution of continuity. In sapremia there is simply septic intoxication. The micro-organisms that produce the poisonous compounds to which the symptoms are due, are not themselves taken into the system. Septicemia is a true infectious disease. In it micro-organisms capable of multiplying within the body are taken into the system and there increase in number and produce the poisons to which the symptoms are due. Sapremia is a perfectly manageable disease. Every case properly treated will recover. The records of septicemia under all treatment show a very great mortality.

To follow up these points I will take what I consider a typical case of each disease and give in as much detail as space will allow the different phases of them. The case notes will be made very brief.

Laura W.—, aged 18, colored, primipara, was confined October 8, 1887. She was delivered by forceps of a child weighing nine pounds. There was considerable post-partum hemorrhage, which was checked by the intra-uterine injection of hot water. The patient was weak, but otherwise there were no unfavorable symptoms until the evening of the third day, when the respiration was 36, pulse 120, temperature 102°. A vaginal injection brought away several blood clots.

The morning of the fourth day the respiration was 34, pulse 142 and temperature 104°, The uterus was soft, relaxed and extended to the umbilicus. There was no pain or tenderness; the milk was suppressed; the lochial discharge was quite offensive to the smell. An intra-uterine injection brought away a large quantity of dark-colored, offensively smelling blood-clots. Ergot was given to contract the uterus.

The fifth day ergot, antipyrine and vaginal injections were used. The sixth day another intra-uterine injection was given. The matter washed out at this time was smaller in quantity and much less offensive than that of two days before.

After this she was given vaginal injections and an occasional antipyretic; but there was nothing of special interest during her convalescence.

Now compare the above record of a case of sapremia with the following notes on a case of septicemia.

Emma S.—, aged 28, white, confined with fifth child March 7, 1886, about 9 P. M. First stage of labor, eighteen hours; second, one hour. There was nothing unusual about the labor. The

*Presented at the meeting of the American Association of Obstetricians and Gynecologists, Cincinnati, Sept. 17, 18, 19, 1889.

next morning the pulse was 100, temperature 101°; that evening pulse 104, temperature 102.5°. The uterus was rather large, but firm, and slightly tender on pressure.

The second day after labor the pulse had risen to 120, the temperature to 103.5°. The area of tenderness had increased. From this time on the area of tenderness increased, till it included the whole abdomen, which at the same time became much distended. The uterus remained contracted; there was no offensive lochial discharge; the pulse at all times was very feeble; the mind was clear. Antipyretics would reduce the temperature only temporarily, but did not affect the pulse rate. Opium was given to relieve the pain.

Until the morning of the seventh day after confinement the pulse varied from 112 to 128, the temperature from 101.5° to 103.5°, the latter being the highest recorded temperature up to this time. The evening of the seventh day the pulse was 160, the temperature was 105 . She died at 10 P. M., just one hour more than a week from the time of the delivery.

Predisposing Causes.—These causes of both diseases may be mentioned together. One cause frequently spoken of is post-partum hemorrhage. My experience does not confirm the belief that post-partum hemorrhage predisposes to other serious puerperal troubles. The records at the Maternité show that no larger per cent. of women who had considerable post-partum hemorrhage were attacked by febrile disturbances than those who had had no such hemorrhage.

If the theory of blood-letting is correct, we would suppose that a considerable hemorrhage at this time would be rather advantageous than otherwise. I doubt if it has any direct influence; but it is self-evident that when a disease is engrafted upon a constitution already weakened by post-partum hemorrhage, the patient has that much less power of resistance.

Much has also been made of the mental condition of the patient. It has been repeatedly affirmed that girls who had been seduced were especially apt to have some form of puerperal trouble; that the depressing effects of grief and shame made them more vulnerable. I have no doubt that such emotions, in so far as they interfere with nutrition, do exert an injurious influence. But the extent of the injury has been much over-estimated. In the hospital wards I have seen repeatedly those who had no other fault than that of being poor, do badly after confinement. And I have seen those who had every cause for shame; who considered themselves forever disgraced; who declared that they did not wish to get well, that their prospect in life was not worth the living, recover promptly.

It should be borne in mind that among the earliest symptoms of some of the puerperal diseases, are despondency and other abnormal mental conditions, and that very often these mental disturbances disappear promptly when the material cause is removed. These observed facts have made me very skeptical on the subject of the influence of the mental status on puerperal diseases.

Some of the acute infectious diseases have been thought by many to have a direct causative reaction to puerperal fever. Scarlet fever, diphtheria and erysipelas have been considered the chief offenders. But the statistics show the death rate of women in the puerperal period who are affected by scarlet fever and diphtheria, is about the same as for other conditions. Women have been known to suffer an attack of facial erysipelas during the puerperal period and not have any form of puerperal septicemia (*Lomer*). Of course it is not doubted that erysipelas can be communicated to the lacerated surfaces about the genital tract as easily as it can be to any other place.

I think that the great source of danger is *not* the inoculation of the specific germs of these special diseases, but that the principle source of danger is in the communication to the genital canal at a time when its open surfaces afford ready means of inoculation, and when the recent stretching has reduced the resisting powers to the minimum, of

the micro-organisms present during the suppuration accompanying these diseases.

Robert Barnes and Galabin lay much stress upon auto-infection. That is, the poisoning of the body by the products, either from retained placenta or membranes, or by the compounds formed during involution. I can not understand how this can be true. In the first place part of the membranes or placenta, or even the whole of both, have been known to be retained in the uterus without undergoing putrefaction for many days without producing any unfavorable symptoms. In the second place the products formed during involution are present in all cases, and if they can cause any puerperal fever they ought to do so whenever present. Involution is essentially a fatty degeneration. The same process is often met with in other parts of the body, and is then never considered a cause of any febrile disturbance. I do not think it justifiable to believe in any true auto-inoculation.

The fact that fevers of the puerperal period are much more common in winter, points to the atmospheric condition as having some causal relation. In all probability the actual change of temperature does not make this difference, but that it is simply the bad ventilation. The improper air supply favors the accumulation and propagation of infective material. If all hospitals and lying-in chambers were properly ventilated, no doubt the undue proportion of cases occurring during the later winter months would disappear.

Blood-clots, portions of membranes and placenta retained in the uterus are of themselves perfectly harmless. It is only when they begin to decompose that they become harmful. This process of decomposition may begin at any time, but it can not begin till some element from the outside has been added to the retained material. Since there is always a possibility of the addition of the lacking element and the subsequent decomposition, these retentions are always elements of danger.

The immediate causes of sapremia and septicemia must be considered separately.

Immediate Causes of Sapremia.—In sapremia we have certain micro-organisms acting upon retained portions of placenta membranes, blood-clots or lochia; the decomposition of the matter retained and the absorption into the system of the products of this decomposition. Concerning these statements three pertinent questions may be asked: First, what is the evidence of the presence of micro-organisms? Second, what is known of the chemical nature of the compounds formed by the action of these micro-organisms? Third, what is known of the poisonous effects of these compounds?

The evidence of the presence of micro-organisms is abundant, and is either direct or indirect. Directly, they have been found by all observers who have examined decomposing animal matter microscopically. Indirectly, by establishing the fact of the presence of putrefaction. The simplest definition of putrefaction is the decomposition of albumen compounds under the influence of moisture, warmth and certain micro-organisms. The albuminoids present may be in the form of placenta, membranes, blood-clots, or lochia. The two conditions of warmth and moisture are always present in the living body, so that the very fact of putrefaction is positive evidence of the presence of micro-organisms. The putrefaction can in many cases be discovered by the odor of the hydrosulphuric acid and ammonia compounds evolved. And I hope to be able, further on, to show that the toxicological effects of some of the amines and amides produced during putrefaction are of themselves evidence of the albuminoid decomposition.

Much labor has been expended by Brieger, Gautier, Vaughan, Pauchet, Scheurlein, Grawitz and many others in studying the compounds formed during putrefaction. It is true that the compounds formed during the first few days of putrefaction have not been worked up so carefully as the ones occurring later in the process. But enough is known to show that certain alkaloid compounds are formed at all stages, and that these animal alkaloids or ptomaines differ according to the micro-organisms present

and the length of time the process goes on.

A short sketch of a few of the best known of the ptomaines will probably help to clear up the subject.

For example, cadaverine, $C_5H_{14}N_2$, has been obtained by Brieger from human hearts, livers and lungs which had been left to putrefy in a warm place for three days. It seems to be constantly produced by the growth of the comma bacillus, without reference to the particular soil. The investigations of Scheurlen, Grawitz and others show that cadaverine is capable of producing inflammation and necrosis.

Gautier and Etard obtained a base $C_8H_{11}N$ from the decomposing flesh of the horse and ox. They consider it a constant product of putrefaction. It is an alkaline, almost colorless, oily, liquid, and possesses a strong, penetrating odor. A dose of .0017 gram. injected under the skin of a bird produced marked unsteadiness of gait, paralysis, and finally death. The pupils were normal and the heart stopped in diastole.

Vaughan says of mydaline, another of these bases, that it "has an entirely specific action. Small quantities injected into guinea-pigs or rabbits produce, after a short time, moistening of the under lip, and an abundant flow of secretion from the nose and eyes. The pupils dilate gradually to the maximum, and become reactionless; the ear-vessels become strongly injected and the body temperature rises 1° to 2°. During the action of the poison the animal shows a tendency to sleep, and peristaltic action of the intestines is heightened. Larger doses induce an exceedingly violent action, which invariably results in death. On post-mortem examination, the heart is found stopped in diastole, and the intestines and bladder contracted; otherwise nothing abnormal is observed."

Ptomaines and their salts, like other bodies of a similar chemical nature, readily pass through animal membranes. This fact explains their ready absorption from any cavity containing them into the system.

It is not claimed that cadaverine or mydaline, or any special of ptomaine is the cause of the symptoms of sapremia, but that the process going on in the parturient canal in this disease being identical with that which produces these ptomaines, it is certainly fair to presume that similar compounds are there produced, and that the symptoms are due to the effect of these ptomaines on the body after they have been absorbed.

Immediate Causes of Septicemia.—It has been stated that septicemia is an infectious disease, *i. e.*, "a disease which is caused by an invasion and reproduction within the body of pathogenic micro-organisms" (Welch).

The earlier observers lost much time and caused not a little confusion by not differentiating the organisms of putrefaction which are comparatively harmless when inoculated into the body, from those micro-organisms which, when introduced into the body, multiply there and produce septicemia, or other infectious disease, as the case may be.

One of the first to direct attention to this field was Mayerhofer. In 1865, he found that the lochia of infected women contained micro-organisms, which he considered the cause of the decomposition. In 1869, Coze and Felz found in the blood of patients suffering with puerperal septicemia, "round corpuscles, arranged in the form of chains." Afterward Rindfleisch mentions having found micro-organisms in the muscular structures of the heart. These observers have been followed by Recklinghausen, Waldeyer, Orth, Klebs, Wolff, Pasteur, Ehrlich, Fränkel, Carl Lomer and others. These is no mention of any of these observers failing to find the chain-like micrococcus; all succeeded.

Coze and Felz injected hypodermically the blood from septicemic patients into rabbits. A majority of the rabbits died of diarrhœa and convulsions. If the blood of one of the infected animals was used, the same symptoms were noticed. In this blood was found the chain-like micrococcus.

Eberth and Orth both inoculated the cornea of rabbits with material obtained from puerperal septicemic patents, and found, upon examination microscopically, the chain-like micrococci.

There is no method as yet known by

which the chain-like micrococcus of puerperal septicemia can be distinguished from similar micro-organisms found in scarlatina, diphtheria and erysipelas. But this fact argues rather that the present methods of investigation are defective, than an identity of the micro-organisms.

Carl Lomer, of Berlin, in writing of "The Relations of Micro-organisms to Puerperal Fever," gives the following recapitulation:

"I. The chain-like micrococci have frequently been found both in the exudations and in the organs of patients having died of puerperal fever.

II. All observers have noticed the same characteristic variety.

III. Different species have hitherto never been discovered.

IV. It seems as though all who sought for them have been able to find them in every case.

V. More recent researches have shown that, besides the chain-like micrococcus, other micro-organisms—*i. e.*, bacteria—can be found in puerperal fever.

How these micro-organisms produce the symptoms which accompany their presence, is an interesting question. It is extremely probable that of themselves they do no harm, but that it is through certain poisonous compounds generated by them that they produce the symptoms. After they are once within the body, their action is in all probability much the same as that of the micro-organisms of some other infectious diseases which have been carefully studied.

For example, by the cultivation of Koch-Eberth's typhoid bacillus on beef-broth from eight to fourteen days, at a temperature of 37.5° to 38° (C), Brieger obtained typhotoxine $C_7H_{17}NO_2$. When typhotoxine is injected into a mouse or guinea-pig, there is at first salivation and increased respiration; then the salivation increases, the heart and respiration become weaker, the animal has diarrhœa, the pupils dilate, and the animal dies in one or two days.

Tetanine $C_{13}H_{30}N_2O_4$, is a similar substance. Brieger has obtained it by cultivating the impure tetanus microbes of Rosenbach in beef-broth. More recently Brieger succeeded in obtaining tetanine from the amputated arm of a patient suffering from tetanus, the physiological and chemical reactions of which were identical with those of the compound formed by the cultivation of the microbes in beef-broth. This base, when injected into animals, produces all the characteristic symptoms of tetanus.

While it has not been demonstrated, it is probable that the chain-like micrococcus of septicemia produces basic substances similar to those shown to be produced by the typhoid bacillus and the microbe of tetanus, and that is really these basic substances that directly produce the symptoms.

Symptoms of Sapremia.—The symptoms of sapremia come on after the end of the second day, and as a rule, before the fifth; near the end of the third day being the most common time. There may or may not be a chill. When there is a chill it is usually not followed by others. The temperature rises at once, often to 105°, and in nearly all cases above 103°. The pulse is rapid, varying from 100 to 140 per minute; the respiration is 30 to 40, or even more, per minute. For some days there is maintained a certain relation between the pulse, temperature and respiration. Any agent that reduces the temperature also reduces the respiration and pulse rate. The temperature does not follow any regular diurnal change but fluctuates greatly. The possibility of drainage affects the temperature more than anything else. The condition of the skin is not constant; in some cases it remains cool, in others it is hot and dry, and in still others, though rarely there is considerable sweating.

In some cases the brain does not seem to be affected, but in many, with the higher temperatures there is somnolence. One patient under my care would sleep continually. She could be roused without much difficulty, and when awakened her mind seemed perfectly clear, but she dropped to sleep immediately upon being left undisturbed.

The uterus is large, so flabby that it is difficult to outline through the abdominal walls, and extends to or above the

umbilicus. It is not painful on pressure. The intestines often become distended, causing tympanites, but there is no pain or tenderness in any part of the abdominal or pelvic cavities.

In most cases the lochia has an odor of putrefaction. The absence of this sign should not be looked upon as precluding sapremia. When it is marked it is of very great importance, but there are many cases in which the odor, if any, is so faint that it will escape detection. This is especially the case where antiseptic vaginal douches have been used.

In cases in which the milk-flow has been established before the beginning of the fever, it is suppressed. In cases where the fever begins before the milk-flow, the flow does not begin at the usual time. In a majority of the cases the milk flow is again established after the recovery of the patient.

Symptoms of Septicemia.—The first symptoms come on, as a rule, very soon after confinement; most often within twenty-four hours; more rarely, after forty-eight hours have elapsed. There may or may not be a chill. The first rise of temperature is usually not over 101° or 101.5°. Within the first few days the temperature may run to 102.5° or even 103.5°; the latter figure is very high. Just before death, or after there is set up a secondary sapremia, the temperature may run to 105°, or above that. The pulse from the beginning is rapid —120 to 160—and very small; the respiration is hurried. If the temperature is brought down by ordinary antipyretics the pulse does not fall accordingly. There is, quite early over the uterus, more or less tenderness, which extends as the disease progresses. The uterus may be quite large but firm; the abdomen becomes tympanitic and tender; the extremities are cold; the mind clear. The lochial discharge in many cases is apparently little changed or suppressed. In some cases the lochia may be decomposing, but not as a rule. The face is pinched and has an anxious expression.

Contagiousness of Sapremia.—It is claimed by the majority of writers that what is called the "autogenetic form of puerperal fever," by which misnomer puerperal sapremia is sometimes known, can not be communicated from one patient to another. Dr. Barnes says: "The autogenetic forms proper did not appear to possess the active powers of propagation. For example, a common form, that which rose from a decomposition of the placenta setting up a septicemic fever, generally began and ended in the person attacked."

Dr. Fordyce Barker quotes the above and adds: "On this point my own experience and observations are in entire accord with Dr. Barnes." Galabin says: "Where there is septic intoxication or sapremia only, without infection, there can be no contagion."

While we have good reason for believing that sapremia is not contagious to the degree that septicemia is, still it should not be forgotten that we have going on a morbid process, due to the presence of micro-organisms; and that the introduction of these micro-organisms into a suitable nidus will certainly set up a similar process.

Contagiousness of Septicemia.—The evidence of the communicability of this disease is so voluminous that I shall not even attempt to review it, but simply refer the student to the histories of the various epidemics that have occurred; to the admirable paper on the subject by Dr. Oliver Wendell Holmes; to the individual cases which are only too well known by a large majority of practising physicians.

As to what becomes of the micro-organisms in the cases which recover, or how or in what manner the contagion is eliminated from the body, we know nothing positive. Welch, in speaking of the "Modes of Infection," makes the following statements:

"The specific germs of infectious diseases can, and in cases of recovery doubtless often are, destroyed within the body. Contrary to what many have believed, the kidneys and the intestines cannot be regarded as important means of freeing the body from micro-organisms that have gained access to the blood. When specific micro-organisms of an infectious

disease are found in the urine or in the feces, it may be inferred that the genito-urinary apparatus and the alimentary tract respectively are the seat of some lesion produced by these organisms."

We do not know how the micro-organisms are eliminated from the affected patient, or how they are introduced into the unaffected one. All that we do know is that the transfer is made.

Pathological Anatomy, Sapremia.—On post-mortem examination, there are found in patients dying from puerperal sapremia only such lesions as are due to continued high temperature. Rigor mortis is usually very feebly marked. The blood is imperfectly coagulated; the heart is flabby and marked with petechiæ beneath the pericardium; the liver and kidneys are congested and softened; there is always hypostatic congestion of the lungs; the spleen is large, soft and at times almost diffluent; the mucous membrane of the alimentary canal is soft and swollen; microscopically, the heart, liver and kidneys are found to have undergone fatty degeneration. Welch has shown experimentally that these degenerations take place under the influence of high temperature, without the addition of any other agent.

Pathological Anatomy, Septicemia.—In puerperal septicemia there are various conditions found post-mortem. If the patient die within the first twenty-four hours, as they do in some epidemics, there are often no gross lesions. But when the tissues of these cases are examined by the microscope, there are found cloudy swelling and granular infiltration of the cells, showing a beginning inflammation.

In patients living over twenty-four hours, there is almost invariably a marked inflammation of some of the serous membranes. The peritoneum is the one most frequently affected; and for this reason Gooch calls this disease "peritoneal fever." There is an exudation of plastic lymph, usually not great in quantity, and a considerable amount of serous fluid is poured out. The intestines are distended with gas, and are stuck together. Or, more rarely, the pleuræ or pericardium are involved and show the exudations of lymph and serum. Microscopically the fluid exudations are shown to contain large quantities of the chain-like micrococci. As has been stated, these micrococci are also found in the substance of the muscles, heart, kidneys and liver.

Prognosis.—The duration of puerperal sapremia is variable. It depends upon the condition of the patient at the time the disease is recognized; upon the anatomical relations of the pelvic organs in the individual, these relations having much to do with the drainage, and upon the treatment. Many cases will recover in a very few days; others, where there is much difficulty in keeping the uterine cavity cleansed, remain ill for days, or even weeks. Nothing can be said as to time; all that can be positively stated is, that under proper treatment every case will certainly recover.

Septicemia may terminate fatally within twenty-four hours. The vast majority are either dead or convalescing by the sixth day. The per cent. of mortality is very high. Some have even gone so far as to say that no genuine case ever recovers. This statement is undoubtedly too sweeping; for almost every one who has seen these cases has seen certain ones in which the diagnosis was beyond question correct, recover. The death rate in some epidemics is greater than in others; just as in measles and small-pox the virulence differs in degree with each epidemic. In puerperal septicemia, the greater the number of cases the higher is the percentage of deaths.

Prophylaxis.—Prophylaxis means simply surgical cleanliness of the patient, attendants and all appliances. I will not take up your time reviewing various methods with which you are all familiar, but give briefly the method we carry out at the Maryland Lying-in Asylum.

All patients when admitted are given a full bath and clean clothes. The bath is repeated at least twice a week up to the time of confinement. After labor begins, if there is time, a full bath is

given; if there is not sufficient time, a thorough sponge bath, with a liberal quantity of soap, is used from above the umbilicus to the knees, and followed by a rinse of a 1-2000 corrosive sublimate solution and a vaginal injection of a 1-5000 corrosive sublimate solution. A confinement gown fresh from the iron is put on; a soap and water rectal injection is also given. If the labor is prolonged the vaginal injection is repeated.

No physician who is attending a puerperal disease of any kind attends a case of labor. The hands, nails and arms of the physician are cleaned with soap and a solution of corrosive sublimate in the ordinary way. He removes his coat and either puts on a white apron or trusts to his bare arms and ordinary white shirt. Carbolized olive oil is used to lubricate the fingers. The number of vaginal examinations made are as few as is considered expedient. Though in an institution like this this, where practical obstetrics is annually taught to a large class of students, the number of examinations is necessarily many more than in private practice.

The nurses wear dresses and aprons made of some light colored material that will wash, and are as scrupulous about their personal precautions as the physician.

The rooms of the hospital are large, well lighted and well ventilated. Three times a week the floors all over the house are scrubbed with soap and water, and these are followed by a solution of corrosive sublimate.

The bed for each confinement is made up at the time. Everything about the bed is fresh and clean. Tarred paper or a rubber blanket is used to protect the mattress.

In case forceps or other instruments are necessary, they are carefully disinfected and warmed before they are used.

The labor is not considered completed until the genital tract is thoroughly emptied. It is thought safer to remove bits of placenta and shreds of membrane from the uterus with the hand than to allow them to remain. Except after operative cases, the vagina and uterus are not washed out. In all cases the external genitals are washed at once and freely dusted with a mixture of iodoform and boracic acid. The secundines are taken at once from the room. During the puerperal period where there is no special indications it is not considered advisable to use either vaginal or intra-uterine injections. All injuries to the perineum other than very slight lacerations are repaired at once.

Treatment of Sapremia.—From the nature of sapremia the treatment easily falls under four heads, and the only discussion is as to the best methods of obtaining the objects sought, which are:

1st. To cleanse the parturient canal.

2nd. To secure tonic uterine contractions.

3rd. To control temperature.

4th. To support the patient.

To keep the vulva and vagina properly cleansed is quite easily accomplished by external washes and vaginal injections. The vaginal injections are ordinarily some of the standard antiseptic solutions, preferably corrosive sublimate 1-5000. A vaginal injection should be given preparatory to all operations upon the uterine cavity.

The cleansing of the cavity of the uterus presents more difficulties and consequently more methods. On account of the comparative ease with which it can be accomplished, and on account of its efficiency, I place intra-uterine injections as the first and most important of these methods. I prefer for an intra-uterine wash a solution of corrosive sublimate, about 1-5000. There have been a number of accidents from the use of corrosive sublimate in the parturient canal, but I think that nearly all, if not all, such accidents can be traced to some defect in the use of the solution. In a number of these cases the error has been in using an unnecessarily strong solution in large quantities, or there have not been sufficient precautions taken to insure the exit of all the fluid injected.

The syringe best adapted to intra-uterine injection is one made on the pattern of the Davidson with the rectal nozzle on, and attached to this a soft

rubber intra-uterine tube that I had made for the purpose. This tube is about twelve inches long and number seventeen (American), calibre. It is made of the same material as the soft rubber catheter. The point is smooth, round and closed. Three inches from the point is a slightly raised collar; between the point and collar, but grouped rather toward the point, are three large lateral, velvet-eyed openings. The whole instrument is smooth and flexible; there is not a rough edge that can scratch the most delicate surface. The open end of the tube is slipped over the nozzle of the syringe, and both are filled with the corrosive sublimate solution. The tube is introduced by grasping the point between the index and middle fingers of the right hand, allowing the remainder of the tube to rest in the palm of the hand; then carry the point up to the external os, reflect the point into the cervical canal, grasp the middle of the instrument between the thumb and finger of the left hand and gently push it in until the collar is felt at the external os. You then know that the end of the tube is well into the cavity of the uterus and still at a safe distance from the fundus. The solution is then forced into the uterus until it returns quite clear. About a quart is the quantity usually used, though as much as a gallon is sometimes necessary.

After the injection is finished, instead of removing the whole instrument at once, the nozzle is slipped out of the tube, the latter being left in place to insure the exit of *all* the injected fluid. When the tube comes out of itself it is placed in a 1-2000 corrosive sublimate solution till wanted.

I prefer the soft rubber injection tube for several reasons. It is much cheaper than the more complicated instruments; its flexibility allows it to adapt itself to whatever angle is formod by the vaginal and uterine passages; being soft and perfectly smooth it is not apt to break granulations, producing hemorrhage and making another possible route for septic infection. The stream of water passing through the small nozzle of the syringe, then through the enlarged and even calibre of the tube, out through several large openings, gives necessarily a gentle flow into the uterus. I do not believe it is possible to introduce a soft rubber tube through an os that is not sufficiently dilated to insure a return flow; hence risk of distension of the uterus is avoided. Where it is wished to keep up constant drainage, the same tube answers admirably. It can be made to retain its position by fastening the outer end with a piece of adhesive plaster to the thigh.

In some cases, especially when there are retained bits of placenta, the douche fails to bring them away. In such cases the dull curette should be be used, but not until the douche has failed. Put the woman in Sim's position and scrape out the entire uterine cavity, and follow the curette immediately by an intra-uterine injection.

Doléris has invented a sort of brush with which he swobs out the cavity of the uterus. The indications for its use are the same as for the douche or curette.

To secure contraction of the uterus fifteen or twenty mimims of the fluid extract of ergot should be given every two hours. If the interval between doses be so long as four hours, the uterus relaxes and increases the opportunity for the accumulation and absorption of the products of decomposition. The same quanity of ergot does not act with equal power upon all cases and the dose must be varied until the amount is found which keeps the uterus firmly contracted.

The stomachs of some patients will not bear the fluid extract; in these cases the extract or ergotine may be used. Occasionally the hypodermatic syringe must be resorted to. I am in the habit of using the fluid extract subcutaneously. Put the needle, its full length into the outer and lower side of the thigh and there is no need to fear abscesses.

When the temperature is not at once controlled by cleansing the cavity of the uterus, some antipyretic may be given, perferably antipyrine or antifebrine. Antipyrine should be used in fifteen grain doses, antifebrine in about half that quantity. No antipyretic should be given at stated times in stated doses, but the temperature should be watched carefully and a sufficient amount of the

antipyretic given to keep the temperature below 102.5° F.

To promote drainage the patient should be raised to a sitting posture to attend to the calls of nature. At least a part of the time she should have her shoulders and back raised to a higher level than the hips, and at the earliest possible period she should be gotten out of bed.

Nutritious and easly digested foods should be given in as large quanity as the patient can be induced to take them. Milk given regularly every two hours is probably the most reliable aliment.

Treatment of Septicemia:—There is no specific treatment for septicemia. Indeed the various plans of treatment, differ widely. The value of each form has been praised highly by whoever happened to think he invented it; but the verdict of practitioners as a whole has not been given in favor of any definite line. And to-day the various results differ as widely as they did when Gooch wrote over fifty years ago: —"Richter could almost always cure it. Dr. William Hunter and Dr. Clarke could scarcely ever cure it. In Dr. Lowder's time it was observed that every woman who was bloooded died. In Dr. Armstrong's time it was observed that every woman who was *not* blooded died."

In Gooch's earlier practice he bled freely and often. In his later practice he almost entirely discarded bleeding and applied moist heat to the abdomen and gave, first a cathartic, usually calomel and jalap and followed the cathartic by tincture of opium.

But it is hardly worth the while to review many of those older authors. The treatments that they used seemed to produce wonders in the hands of the individual who inaugurated them, and as a rule they failed signally when used by the general practitioner.

Alonzo Clark and many of his followers have used opium in large doses. In some cases treated at Bellevue Hospital a number of years ago his instructions to his assistant were—"narcotize them within an inch of their lives." The amount of opium given was gauged by the effect on the respiration. That amount was given which would keep the number of respirations down to about twelve to the minute. This plan has been very extensively used in this country, and probably with better success than any other treatment.

Fordyce Barker recommends highly the use of veratrum viride. But he says himself that;—"it should not be given in those cases in which rapid prostration is manifested by a feeble thread-like pulse, profuse sweats, and cold extremities." If these exceptions are carefully followed I think there will be little veratrum used.

Quinine, Warburg's Tincture, salicylate of soda, resorcin, antipyrine, antifebrine, phenacetine, cold baths, and cold packs have all been used to reduce temperature, and all with about equally negative results as to permanent benefit.

One of the more recent methods of treating peritonitis and including the peritonitis of puerperal septicemia, is by the use of saline cathartics especially magnesium sulphate; all other remedies being excluded.

Intra-uturine irrigation is also used but I cannot conceive of any possible good being done in this way. The pathogenic micro-organisms and their products are both in the system beyond the reach of any possible local treatment.

The treatment that seems to promise the best results in all hands is not exactly like any of the above, but more nearly resembles Gooch's later ideas. It consists of a full dose of magnesium sulphate given at once, and repeated, every twenty four or forty-eight hours; applications of moist heat over the abdomen; sufficient opium to allay pain sufficient antipyrine or antifebrine to keep the temperature below 102.5° F. A large number of cases will not require any antipyretic; when one is used, it is the best to leave it with the nurse with instructions to repeat the dose when indicated by the thermometer.

I do not think quinine of any value in these cases and have ceased to give it.

Mathews Duncan recommends for the flatulence, in extreme casss, the trocar canula, for the mild cases charcoal.

Should the peritonitis go on to suppuration, the proper procedure is to make an abdominal section, wash out the peritoneal sac and drain it.

410 Hanover Street.

THE TREATMENT OF SUCH EAR DISEASES AS ARE USUALLY SEEN BY THE GENERAL PRACTITIONER.

BY HIRAM WOODS, M. D.,
BALTIMORE, MD.

Assistant Surgeon at the Presbyterian Eye, Ear and Throat Hospital, and Professor of Diseases of the Eye and Ear at the Woman's Medical College, Baltimore.

FOREIGN BODIES IN THE CANAL. EAR COUGH. PAPER V.

Foreign Bodies. — Compared with other diseases of the ear the presence of foreign bodies in the canal is a matter of rare occurrence. The patients are usually children, according to my experience, and the foreign bodies, peas, shoe-buttons, pebbles, etc. I once removed a bed-bug from the meatus of a woman at the Eye and Ear Hospital, and once a piece of slate-pencil from the ear of a boy. This case I reported some years ago in this JOURNAL. It will be alluded to again presently. A few days ago I syringed from the ear of a gentleman the end of a wooden tooth-pick which had broken off while he was scratching his ear. As nearly as he could remember, it must have been there several months. He had chronic eczema of the canal and used to "scratch the ear with a lead pencil or anything that came handy." He remembered a toothpick breaking off "some time during the spring," but the ear had never hurt him, and he had forgotten all about it. His object in calling upon me was to get rid of a "fulness in the ear," caused by a small impaction of cerumen.

Dr. Roosa discusses foreign bodies in the canal under these heads: Insects, Living Larvæ and Inanimate Bodies, which have been put there, usually by the patient. Cases of insects in the ear are thought to be more common in the country than in cities, because insect life is more abundant there. Occasionally, however, bed-bugs, roaches, etc., are seen in the ears of patients at city hospitals. I have on several occasions found dead flies in the discharge washed from the canal in cases of neglected otorrhœa.

When living insects get into the canal they some time cause intense pain, while again the only sensation is that of something moving in the ear. If an ear syringe can be obtained, the best plan is to bring the creature out at once with a syringe full of water. When this is impossible, the instillation of water will usually suffice to drown it, thus putting a stop to its movements when pain will cease.

The cases of "Living Larvæ" in the canal, described by Dr. Roosa, must be rare. They are found in connection with neglected suppurative otitis media, and come in this way: "The odor of an otitis media purulenta brings the insect to deposit its eggs in the auditory canal and cavity of the tympanum, where they soon become grubs or larvæ." The objective appearances are: "Small worm-like animals moving rapidly about, very much as a mass of common earth worms." The grubs "are about half an inch in length and of the diameter of a large knitting-needle." Of course, as stated by Dr. Roosa, the now common practice of syringing suppurating ears greatly lessens the number of these cases. Admitting this, however, I think such cases must be almost curiosities. I have seen suppurating ears in as bad a state of neglect as can be well imagined, but such objective appearances as those indicated I have never observed. The treatment is to remove the grubs and stop the suppuration. They do not come away by syringing. They must first be killed by some fluid, [Dr. Roosa mentions Labarraque's solution of chlorinated soda and chloroform vapor], after which they are to be removed with the angular forceps.

It is unnecessary to enumerate the inanimate foreign bodies which are found in the ear, or to discuss how they get there. The two things of greatest importance in connection with them is to be sure they *are* there, and then to know how to get them out. Standard authors, as well as the universal experience of aurists, assert that patients sometimes *think* a foreign body is in the ear when

such is really not the case. It is often difficult to convince such patients that they are mistaken. The only proof that a foreign body is in the canal is *seeing* it. No attempt should be made to remove it until it has been seen. Feeling it with a probe, or accepting the patient's statement that it is in the ear are not sufficient. The latter is entirely untrustworthy, while we can easily be deceived in the use of the former.

Examination with the head reflector and speculum usually reveals the foreign body in the cartilaginous portion of the canal, provided no effort has been made to get it out with forceps or other instruments. Children can seldom push the substance beyond the junction of the two portions of the canal, unless it is very small. Attempts to remove it with instruments may have sent it into the osseous portion,or even through the drum into the tympanic cavity.

Symptoms:—There are practically *no symptoms* pointing to the presence of a foreign body in the auditory canal. Politzer says that "the consequences attributed to foreign bodies are, with few exceptions, due to awkward attempts made at extraction by non-professional hands." He and others record cases of foreign bodies remaining in the canal for many years without producing discomfort. It is usually rather a fear of some unknown consequences of foreign bodies than real suffering which brings the patient to the physician.

When unsuccessful attempts have been made to remove the foreign body, much harm is sometimes done. In the edition of his book just issued, Dr. Buck states that of late years he has not seen a case in which the ear had been injured by the physician's efforts to remove the foreign body, while formerly such cases were very common. He attributes this to a more general appreciation among physicians of the importance of not interfering with a painless ear just because there happens to be a foreign body in the canal. It is certainly to be hoped that this is so. There are cases on record in which life has been lost from cerebral disease produced by middle ear inflammation, and this, in turn, caused by a foreign body *shoved* through the drum into the tympanum. In the case of the boy from whose ear I removed the piece of slate-pencil, the foreign body was not noticed until the boy himself called his mother's attention to it as a joke. She tried to remove it with a hair-pin and only pushed it farther into the canal. Several such attempts caused great pain and the boy was taken to a neighboring physician, who tried forceps. The use of these instruments only added to the child's sufferings. When brought to the hospital, it was necessary to put him under the influence of chloroform before an examination could be made. After the blood had been wiped away, the slate-pencil was seen at the bottom of the canal, wedged across the antero-posterior diameter, and running, from behind, inwards and forwards. After gently passing a lachrymal probe behind its posterior extremity, the piece was easily removed with the syringe. The anterior and lower quadrant of the drum had been perforated, and the skin of the canal—especially of the anterior wall—literally ploughed up by the attempts made to remove the foreign body, which was giving no trouble at all.

Treatment:—I am far from advising that foreign bodies be left alone; but it should be clearly understood that, when they are not causing pain, they will usually do no harm, *if left alone.* No forcible, harsh attempts to remove them should ever be made. The large majority come out very easily. As stated in the first of these papers, I think the ear syringe is the safest instrument to use. There are foreign bodies which are most *easily* and *pleasantly* removed with the angular forceps, hook, or scoop, under a good light *when one knows how to use these instruments.* Such substances are hard beans or peas which fill up the canal. Syringing in such cases is tedious and not always effective. If a hook can be easily passed behind, or Buck's curette under, the the bean, removal will usually be effected at-once. The objection to the general practitioners' using these instruments, which were given when speaking of impacted cerumen (viz., that few phy

sicians have the opportunity of learning how to use them properly), holds here with even greater force. There is the same danger of abrading the wall of the canal that was there mentioned, and the additional one of pushing the foreign body farther into the canal. Thus its ultimate removal will be made more difficult, if nothing worse results. Politzer says that "when foreign bodies have not been disturbed by any attempts at extraction, any other method than syringing is rarely required." He thinks, however, that the use of the syringe is contra-indicated "when the foreign body is the head of a pencil and its cavity directed outwards." The force of the stream may send the point through the drum. With this exception, he thinks the syringe safe and effective.

Sometimes the syringe will not bring out the foreign body. In this event—a very rare one—it is my opinion that, unless the physician has had exceptional opportunities for learning how to handle ear instrument, his patient will do better if the ear be left alone. If he has had these opportunities, he will be more or less familiar with the various methods, and it is useless to lengthen this paper with their recital.

I have had one case, where syringing was useless. The patient was a colored boy, 7 years old, from the country, and the foreign body some kind of white bean, which was firmly wedged in the osseous canal.

After the syringing had failed, I put him under chloroform and tried to remove the bean with the angular forceps and probe, but without success. Löwenberg's method—dipping a camel's-hair brush into a strong solution of glue, applying this to the foreign body, allowing the glue to harden and then removing the whole thing—was tried, but there was too much resistance. The boy was then given a solution of alcohol to use in the canal, and was told te report to me a week later on one of my visits to Easton, Md., near which town he lived. When I saw him in Easton, his father told me that he had lost the medicine, and that it had not been used. The hard white bean could be seen just where I first saw it. It was impossible to get any instrument under or around it. Syringing was again useless. The boy was perfectly easy and had suffered no pain. I told his father to let the ear alone, unless the boy had pain, in which event to come to Baltimore at once; if there was no pain, to bring him when convenient. I thought of the operation of detaching the auricle. I have not seen the boy since this visit to Easton in August, 1888.

Ear Cough.—In concluding this study of diseases of the external ear, it may be well to mention this reflex, which is occasionally observed. It is a cough produced by some constantly acting mechanical irritant in the auditory canal, as a foreign body, an impaction of cerumen, etc. I have known one patient who could be made to cough by touching a certain area along the posterior wall of the canal. The course of irritation from the ear to the pharynx or larynx is given by different observers as the pneumogastric, fifth, glosso-pharyngeal and sympathetic nerves. In other words, no one knows just what it is. When no cause can be found for a persistent cough an examination of the ear may clear the case and the removal of the irritant effect a cure.

A woman in Hudson, Mass., has just died "on account of want of medicine, which could not be obtained on account of the compulsory closing of the drug stores by order of the Selectmen." Such is the cause of death assigned in the certificate of her physician, who had prescribed brandy for her. But what will the fanatics of Hudson care? They will think that it is better to die than to drink brandy on a Sunday.

The Association for the Care of Sick Students at Vienna has purchased a house in the Laudongasse, at a cost of 55,000 florins, which is to be opened in the course of the coming academic year for the reception of students suffering from illness or injury. It is now being fitted up as a private hospital with accommodation for forty patients. It is estimated that the cost of maintenance will be 15,00 florins a year.

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BALTIMORE, OCTOBER 12, 1889.

Editorial.

THE STUDY OF EAR DISEASES.—In the division of medicine into specialties, some organs have received too much attention and some not enough. The ear belongs to the latter class. Most surgeons who give special attention to the eye and ear really do more eye work. Lecturers on these subjects generally have very little to say on that neglected organ, and the graduate thinks that with a syringe, warm water and an alkali he can treat all ear diseases.

General practitioners see a certain number of ear cases in their practice, and naturally loathe to part with such patients to send them to specialists, they treat them as best they can. The consequence is that ear troubles, as a whole, are more bungled over than other maladies.

Dr. Hiram Woods, in a series of articles now running in the JOURNAL, has given, in a very clear, concise form, a short history of the treatment of such ear diseases as are usually seen by the general practitioner. The articles are written in a particularly smooth and pleasing style, and have the great merit of containing in a nutshell just what the general practitioner would want with no useless additions. He begins with the examination of the ear and the use of the syringe, gives the anatomy of the ear, the meaning of certain symptoms of most common occurrence, a short account of the most common ear troubles, and then the treatment follows.

And here lies the charm for the general practitioner. All the treatment in the world is not given, nor is every mode of treatment suggested, but Dr. Woods has very wisely only given the treatment which has been found successful in his own hands, or which he has seen used successfully by others.

These articles on ear troubles and their treatment, when completed and bound into a small volume, will be invaluable to the general practitioner as containing in a small compass all that is practically necessary to know about the treatment of the common ear diseases, at the same time containing warnings as to what he should not attempt without the specialist's assistance.

THE OPEN DOOR OF QUACKERY.—In the *North American Review* for October, Drs. William S. Eggleston, Austin Flint and R. Ogden Doremus discuss the question of quackery in the United States. Of the three papers. Dr. Eggleston's is by far the best, since he attacks

the question in an open, honest way and shows the faults and obstacles to improvement. The other two writers seem more to deal in excuses and apologies for the schools they represent, and think that the condition of things in our country in respect to quackery might be worse. Dr. Eggleston gives some pregnant facts, true and startling.

Ours is the only country in which fraudulent medical colleges have existed or do exist: it is the only country in which the Government has no control over the medical schools and medical education. Of the total number of medical schools started in this country, 222, 105 are extant and 117 exist. That is, almost as many are dead as alive. There are enough medical colleges in the United States to furnish medical attendance for 300,000,000 people.

The State Boards, as a whole, advocate improved preliminary education and suggest that schools be modelled more on the plan of the foreign schools, a thing which individual schools naturally object to.

While Dr. Eggleston shows the state of affairs exactly as they exist, the other two writers feebly add that we have some men well prepared when they begin the study of medicine, and some schools require a long graded course.

It is noticeable that men connected with medical schools in this country are never very sanguine about raising the standard of medical education, especially when it tends to decrease the number of their students, and consequently their incomes. A principle is a very good thing until it costs something, and then it loses its attraction.

The idea that this is a free country is never lost sight of, although we do not agree as to the meaning of the word "free." Any ten or twelve men with sufficient influence, or money, which is the same thing, are free to obtain by money or otherwise, a charter from their respective legislatures, to found a medical school.

Our country has always opened its doors to all classes ,and quacks have not failed to enter. Now, some States are doing good work in driving out quacks, but most States are indifferent. Maryland has a law, but on account of the general indifference of those interested, it amounts to nothing. Baltimore holds its doors open for quacks, and they enter as every one knows, because every one is apathetic and indifferent.

Correspondence.

ERUPTION FROM IODINE.

ROCKVILLE, MD. SEPT. 24, 1889.

Editor Maryland Medical Journal:

DEAR SIR:—In reading Dr. Kloman's account of a case of poisoning by a small amount of iodoform locally applied, I was reminded of a patient of mine. Some years ago I was treating a lady, for an eruption, who told me never to touch her with the tincture of iodine, as it it was sure to bring on an attack of erysipelas, I did not use it in her case, but by mistake, she used some that was left for her sister and, sure enough it brought on a severe attack of the before mentioned disease. I afterward prescribed the iodide of potassium in five grain doses and after taking one dose, she broke out just as she had done from the local application of the tincture of iodine. In prescribing the tincture of iodine I always tell my patients to paint only a small portion of the surface with it until they find out what effect it will have.

Yours truly

EDWARD ANDERSON, M. D.

Miscellany.

The Insensibility of Animals to Pain.—A writer in the last number of the *Nineteenth Century* refers again to the well-known fact that animals are not as sensible to pain and suffering as man. It is remarkable that animals used for experimental purposes seem to forget the pain inflicted as soon as it is past. The rabbit, mouse or rat will scream with fright when operated upon, but as soon as let go they go on eating or playing, entirely forgetful of the past. This is probably why they seem to be so insensible. Like infants, they forget the past almost at once, and except for a fright are as happy as before the pain. Of course, in the lower form of life the nervous system is not so well developed, particularly the sensory part, and actual pain is not felt as some think.

Mourning Garments.—The mourning garments in which women array themselves after the loss of a near relative have been made the object of an attack by the *New York Medical Journal,* which declares the "widow's weeds," particularly the mourning veil, to be not only uncomfortable, but positively unhealthy. Uncomfortable it is easy to believe must be the veil worn by those who go into what is known as deep mourning, containing some four yards of closely-woven, heavy crape, whose weight alone is burdensome, while the obstruction to respiration is really serious, as any one can easily convince himself by trying on a crape veil. In hot weather the mourning garb becomes a veritable instrument of torture, inflicting martyrdom upon its wearer as she sits, perhaps, through a long church service, the perspiration pouring out upon her face and staining it with the dye from the veil, while the little air she is able to draw through the close meshes of the crape passes into her lungs loaded with loose particles of the poisonous fabric. Surely the age of reason will sweep away this relic of barbarism. — *North-Western Lancet.*

The Significance and Detection of Traces of Sugar in the Urine.—It has been for some time a disputed point as to whether it was normal for the urine to contain a trace of sugar. Dr. Geo. B. Fowler, in the *Post-Graduate,* believes that this controversy is about decided, and in the negative. Those who maintain the affirmative have either been obliged to employ large quantities of urine, concentrate it by evaporation, and bring to bear profound chemical knowledge, in order to demonstrate a trace of sugar, or they have depended upon the reducing properties which normal urine possesses when treated with some of the standard tests for glucose. Now, normal urine, which will respond to the reduction test will not respond to the fermentation test.

It is generally acknowledged by those who consider sugar to be a normal constituent, that urine contains something else capable of reducing cupric oxide. Uric acid has long been known to possess this property, but it has remained for Mr. G. S. Johnson to discover that kreatinin is of still more importance in this respect. It is the latter which causes all urines to react with the picric acid test, and when both kreatinin and uric acid are removed from the urine, the final filtrate has no reducing effect, either with cupric oxide or picric acid.

Mr. Johnson concludes that cupric acid will be reduced by the normal urine in quantities equivalent to the reduction effected by 0.43 to 0.51 grains of glucose to the fluid ounce. The total reduction affected by normal urine is accounted for by the uric acid and kreatinin which it contains.

The author, after repeating Johnson's experiments, is perfectly satisfied as to the correctness of the above conclusions, and believes that the verdict must stand: Normal urine contains no sugar. If this be the case, the presence of sugar in the urine in any amount must have some significance, and it is important to be

familiar with the possible conditions under which it may occur. In the first place, the terms diabetes mellitus and glycosuria are frequently confounded, and to make a distinction, without going into the unsettled pathology of glycosuria, with or without diabetes, it may be laid down that diabetes mellitus is the result of a central lesion of the nervous system, while glycosuria is caused by direct irritation of the hepatic vessels by toxic constituent sof the blood.

Leaving aside the glycosuria due to transient causes, such as the rapid absorption of an excess of starchy or saccharine food, slight nervous derangements, physical exercise, etc., and only temporary in character, we find this symptom occurring in a number of diseases among which may be noted gout, dyspepsia, certain nervous disorders and neurasthenia and others. It is also found in the aged.

Where sugar, even a traced is found, either constantly or intermittently, in a given urine, unassociated with the diabetic element, and associated with ascertainable bodily ills, it indicates danger just as the discovery of a trace of albumen in the urine means "look out!" As it is not true that every case of albuminuria means Bright's disease, so traces of sugar in the urine do not always indicate diabetes mellitus; but we should bear in mind the frequent connection of glycosuria with serious and fatal affections of the brain, the kidneys and the heart. This point is of especial importance to life insurance companies, and the more so since a man who has a serious chronic disease, as a rule, develops an insatiable desire to have his life insured.

It is not always easy to detect a trace of sugar in the urine where the diabetic element is absent, and of all the tests which are known to possess characteristic reactions with glucose, only a few are applicable to the urine under conditions convenient, satisfactory and comprehensive to the practising physician. These are the fermentation, Trommer's (or Fehling,s modification), and the bismuth test.

In conclusion;

1. Normal urine contains no sugar.

2. The reducing power of normal urine upon cupric oxide and picric acid is due to uric acid one-quarter and kreatinin in three-quarters. Both these bodies may be removed by the use of sodium acetate and mercuric chloride, after the manner described by Johnson.

3. Any reduction of picric acid or cupric oxide after this manipulation is due to sugar.

4, Sugar may persist in traces, unaccompanied by the diabetic element.

5, Diabetes may be warded off by recognition of the first appearance of sugar as a persistent ingredient of the urine.—*Weekly Medical Review.*

The Johns Hopkins Training School was opened last Wednesday afternoon Addresses were made by Mr. Francis T. King, Miss Isabelle A. Hampton and Dr. Henry M. Hurd, after which tea was served. The following are the statistis of the hospital and dispensary work from May 1st to October 1st.

Admission to Hospital Wards.

May,	Male,	23	Female	12
June,	"	47	"	14
July,	"	47	"	27
Aufiust	"	51	"	27
Sept.	"	52	"	31
Total		220		111

Dispensary.

Patients admitted during the months of May, June, July, August and September.

General medical cases	1,747
General surgical cases	506
Children	339
Special diseases—eye, ear, throat, skin, &c	1,430
Total	4,015

Bacilli on a Bald Head.—Dr. Saymonne claims to have isolated a bacillus, called by him "bacillus crinivorax," which is the cause of alopecia. It is, he says, found only on the scalp of man; other hirsute parts of the body, and the fur of animals being free from it. The bacilli invade the hair-follicles and make the hair very brittle, so that they break off to the skin. Then the roots themselves are attacked. If the microbes can be destroyed early in the disease, the vitality of the hairs may be preserved, but after the follicles are invaded and all their structures injured the baldness is incurable. The following is Dr. Saymonne's remedy to prevent baldness: Ten parts of crude cod liver oil, ten parts of the expressed juice of onions, and five parts of mucilage or the yolk of an egg, are thoroughly shaken together and the mixture applied to the scalp, and well rubbed in, once a week. This, he asserts, will certainly bring back the hair if the roots are not already destroyed, but the application of the remedy must be very distressing to the patient's friends and neighbors.—*Med. Record*

There is an editorial in the last number of the London *Lancet* calling attention to some weak points in medical education, that would be profitable for the American as well as the English schools to consider. In regard to the infectious fevers, for instance, the student rarely has an opportunity to study them, save during a special epidemic or after he has entered into practice for himself. Even when occasion is afforded to visit the special fever hospitals, the diseases cannot be watched throughout their entire course. This is a serious defect. Psychology and mental disease is another department of medicine in which the student frequently remains in blissful ignorance, until he is rudely startled as a practitioner by being suddenly called to give testimony in a court of law, or sign a certificate for the detention of a supposed maniac in an asylum. These, as well as medico-legal questions, are rapidly being left in the hands of experts by our rather defective methods of education; but every physician should be acquainted with this department of medicine, for many obvious reasons. Gynæcology and children's diseases are taught somewhat more practically than they used to be; but not yet as well as they might be. Some of these cases are the commonest in ordinary practice.—*Times and Register.*

The Infective Period in Contagious Diseases.—In the *Glasgow Medical Journal*, Dr. James Finlayson contributes an article in which he has collected and tabulated the views of recent authorities on the infective and incubation period in contagious diseases. The author has drawn up three tables, one showing the various views of well-known authors as to the infective period, another showing the period of incubation, and a third showing the period of quarantine necessary to enforce in cases where the patient has been exposed to infection, before they should be allowed to be considered safe to mix with others. Some such rules are also required as to the time when it is safe to allow healthy children to return to school, if they have brothers or sisters suffering at home from infectious diseases, especially if they themselves have once had the disease. The infective period for scarlet fever is from seven to eight weeks; measles, three to four weeks; rötheln rather less; mumps varies from two to four weeks, and whooping cough is usually put down to eight weeks or more. The paper is a very instructive one, and every general practitioner would do well to keep a copy of it always ready for reference.—*Med. Record.*

How much should a city pay its health officers?—The Michigan State Board of Health has recently published a paper by its secretary, Dr. Henry B. Baker, in which he asks how much the average city or villige can afford to pay its health officer. He answers the question by saying that statistics which can not be questioned prove that in those localities in Michigan where the recommendations of the State Board of Health are carried out about eighty per cent. of the deaths from diphtheria and scarlet fever are prevented by the thorough isolation of all infected persons and the thor-

ough disinfection of all infected persons, things, and places. Statisticians, he adds, usually value a person in the prime of life as worth to the community about a thousand dollars. Dr. Baker thinks that in a village of fifteen hundred inhabitants a health officer can easly save the lives of two children and one grown person in each year, and he concludes that such a village can well afford to pay its health officer two thousand dollars for the prevention and restriction of scarlet fever, diphtheria, and typhoid fever, and save money by the transaction.

Medical Items.

Dr. George Reuling has returned from Europe.

The death rate last week was remarkably low, 13 62 per thousand.

Last year 1356 persons died of delirium tremnes in Eng land.

In nineteen towns of Conecticut not a single death occurred last week.

The arrangements for the Semi Annual meeting of the Medical and Chirurgical Faculty of Maryland to be held in Hagerstown on Nov. 12th and 13th are well under way. The meeting will be a great success.

The Michigan State Board of Health requires every case of typhoid fever to be reported.

The John Hopkin's University would like some wealthy philanthropic individual to give them a half million for a medical school.

Dr. Thomas S. Latimer has moved to 103 West Monument Street next to the Mount Vernon Hotel.

Dr. Wilmer Brinton has removed to his handsome new office and residence on Calvert and Preston Sts.

The freshest ailment is an affection of the fingers due to constantly thumping a type-writer.

Dr. Henry M. Thomas, son of Dr. James Carey Thomas, was married last Thursday, to Miss Zoe Carey daughter of Mr. George G. Carey, of Hamilton Terrace.

Dr. Henry C. Coe has been appointed Professor of Gynæcology in the New York Polyclinic, to fill the vacancy made by the death of Dr. James B. Hunter.

Dr. Robert B. Morison who recently read a paper before the International Congress of Dermatology and Syphilography at Paris has returned home.

The native Egyptians are such good subjects for surgical operation as to give rise to the saying that one Egyptian will stand as much surgery as seven Europeans.

Professor Bardeleben has been elected Dean of the Medical Faculty of the University of Berlin for the coming academic year.

It is proposed by a numbe of the late Professor Bamberger's pupils to place a portrait of him in the workroom attached to his clinic.

The Boston *Courier* says that the remarkably high death-rate in that city this summer is mainly due to the impure water which the citizens are compelled to drink.

English medical experts are now making strong arguments in favor of the corset. Thus, little by little evidence accumulates to show that the corset has come to stay.

The Sultan has summoned Dr. Schweninger to Constantinople, and built a palace for him so that he may stay for a week and apply his treatment in reducing the Sultan's obesity.

Fifty Thousand Dollars has been voted by the recent Legislature of Texas for the establishment, at Galveston, of a medical branch of the State University, and the city of Galveston gave $25,000 additional.

After the fifteenth of December, the Sisters of Mercy now in charge of University Hospital will leave and the Faculty will take charge. Some decided improvements are in prospect.

Several of the Medical Journals of Paris have united to form a protective association. Over thirty journals have already become members, many of which are well known on this side of the Atlantic.

A daily paper says "Julian Sterling, of Bridgeport Ct., lately had his eyeball removed by a doctor to get at a cinder, and while it lay on his cheek insensate to pain from cocaine, he could see his ear with it!"

Dr, Lauder Brunton is about to pay a three months' visit to India, as the guest of the Nizam's Government, for the purpose of testing the results of the Hyderabad Chloroform Commission.

A chair of hygiene and bacteriology is about to be established in the University of Königsberg. Dr. Karl Fränkel, first assistant to Professor R. Koch, of Berlin, will be called to fill it.

Dr. Arthur Böttcher Emeritus Professor of Pathology and Morbid Anatomy in the University of Dorpat, and at one time co-editor of the *St. Petersburger medicinische Wochenschrift*, died on July 29th, in the fifty-eight year of his age.

A contributors to the *British Medical Journal* tells of the birth of twins, each of which had been strangled *in utero* by the umbilical cord of the other wound around its neck so tightly as to be sunk deeply into the flesh.

The Berlin Academy of Science has granted the sum of 1,500 marks to Professor L. Brieger for the furtherance of his researches on ptomaines, and a like sum to Dr. Fleischmann, of Erlangen, in aid of his investigations on development.

Dr. John O. Roe was elected Chairman, and Dr. F. H. Potter Secretary, of the Section on Laryngology and Otology of the American Medical Association for the ensuing year. The next meeting will be held in May, 1890, at Nashville, Tenn.

At the meeting of the Gynecological and Obstetrical Society last Tuesday night. The following were elected, President, Dr. P. C. Williams; Vice Presidents, Dr. B. B. Browne and W. E. Moseley; Secretary, Dr. T. A. Ashby; Treasurer Dr. Robert T. Wilson. At the same meeting Dr. Wilmer Brinton was elected a member.

The Clinical Society electedthe foll owing officers at its first meeting on October 4th President, Dr. Robert B. Morison; Viec, President, Dr. W. H. Norris, Recording Secretary, Dr. Wm. J. Jones; Corresponding Secretary, Dr. H. E. Knipp, Treasurer, Dr. James M. Craighill; Member of Finance Committee, Dr. George H. Rohé.

Le Bulletin Medical of October 2nd states that George Ebers has recently brought to light a papyrus dating from one thousand years before Hippocrates and treating of therapeutics. Eber has just translated [into German] that part of the manuscript which treats of the disease of the eye.

The next annual meeting of the German Dermatalogicol Society will be held at Berlin in connection with the International Medical Congress. Professor Caspari, of Königsberg, has been appointed President; Professor Neisser, of Breslau, Secretary; and Professor Lipp, of Graz, Treasurer, for the year 1889-90.

The American Academy of Medicine is endeavoring to make as complete a list as possible of the Alumni of Literary Colleges, in the United States and Canada, who have received the degree of M. D. All recipients of both degrees, literary and medical, are requested to forward their names, at once, to Dr. R. J. Dunglison, Secretary, 814 N. 16th Street, Philadelphia, Pa.

The ratio of illegitimate births in the various countries of Europe, is, according to the last reports, as follows: Out of every hundred births 7 were illegitimate amongst the Spanish, 11 amongst the Italians, 16 amongst the English, and 24, amongst the Germans In Paris, however the illegitmate births reached 38 amongst people of French nativity.

The following appointments are announced at Clark University, Worcester: Prof. Arthur Michael, of Tufts College, professor of chemistry; Prof. J. Playfair McMurrich, of Haverford College, docent in biology; Dr. Franz Boas, docent of the University of Berlin, docent in anthropology; B. C. Burt, of Michigan University, docent in historical psychology; Frof. Alfred Cook, of Bryn Mawr College, docent in psychology; Dr Arthur McDonald, docent in psychology; Prof. Herman C. Bumpus of Olivet College, Michigan, fellow in biology.

Original Articles.

EXTRACTS FROM HISTORICAL SKETCH OF UNIVERSITY OF MARYLAND.

I. JOHN D. GODMAN AS LECTURER. II. THE PATTISON-CADWALLADER DUEL. III. LAFAYETTE RECEIVES THE DEGREE OF LL. D.

BY EUGENE F. CORDELL, M. D.

I.

The year 1818 deserves to be noted for the graduation of John D. Godman, a youth, who, arising solely by his talent and merit from the humble position of a poor and friendless orphan, was destined to become one of the foremost of American savants, notwithstanding his brilliant career was cut short before it had reached its full development. He fell a victim to that dread disease—consumption—which has laid low so many of the brightest and best of our profession. The University should be proud to have trained such a scholar and to have afforded him the means, denied by nature, for entering upon that scientific career for which he was so well fitted. The circumstances connected with Godman's lectureship are these:

During the winter of 1817 and 1818, Professor Davidge met with a serious accident by slipping upon the ice and falling against the curb-stone. He thus sustained a fracture of the thigh-bone, which confined him to bed for several weeks, and rendered him lame ever after. Of course his further attention to his lectures was rendered impossible during that session, and in the emergency his assistant was called upon to take his place. Although not yet a graduate, Godman gladly embraced the opportunity—thus unexpectedly offered—for entering upon that career, which was to be the chief business of his life, having an innate consciousness of his ability to discharge its duties with credit. The result is graphically stated by his biographer. The sympathy arising from their common youth and sense of companionship, the contagious enthusiasm with which he discharged his task, and the consciousness of his superiority which was too apparent to excite any feelings of jealousy or rivalry, made him master of his audience from the first. With eloquent and burning words and with all that fervor and zeal which characterize a vivid imagination and a comprehensive intellect, to which the world of knowledge is just unfolding its treasures, he threw a charm into the dry subject, which it had never had for his audience before. In chaste and apt language of which he was master, with well-chosen illustration, drawn from acute observation, extensive reading, and a memory which never permitted anything to escape that once entered it, and by a style in its clearness and simplicity contrasting with the turgid and meaningless verbosity of the day, he drew his youthful audience around him. So close was the attention and so fascinating the teacher, that a pin might have been heard to fall during the delivery of his lectures. With such a guide and such surroundings the weeks flew rapidly by and the end came—the regretful time of parting. His success had been perfect and gladly would the class have seen him permanently invested with the chair. No vacancy then existed, however, and after obtaining his degree he saw no other opening than a country practice. Although having little to do in a professional way, even there he was not idle, but utilized his ample leisure for the prosecution of those studies and researches in natural history, which led afterwards to his work upon that subject, the first in America, and made him one of the authorities in that department. When the chair of Anatomy became vacant in 1819, he turned his face, as by right, towards his Alma Mater, which, other things being equal, should always prefer her own children to strangers. His qualifications and fitness for the post had been fully demonstrated and were freely acknowledged, but although he waited a whole year before the vacancy was filled, the verdict had been irrevocably passed—he was too young. Thus was lost to the institution and to the State, a man who appeared destined to advance our knowledge, and more than it had

been advanced by any one of his predecessors, at least in this part of the world. If so much could be achieved in so short a life, what great benefits would science not have derived, what remarkable steps in advance might not have been made, had it been given to such a great mind to work on for the good of his race during a life-time of ordinary length!

John D. Godman was born at Annapolis, 1794. Being left an orphan and very poor, he received only the rudiments of an English education. He was then apprenticed in Baltimore with a printer, but ran away during the war of 1812 and joined the American fleet in Chesapeake Bay. He began the study of medicine with Dr. Luckey, of Elizabethtown, Pennsylvania, and by the generous interest of the Faculty was enabled to continue it at the University of Maryland. After graduating, he spent a short time in the country, and then went to Philadelphia. There he organized a very successful school of anatomy. He held several professorships and lectureships, edited two or three medical journals (the *Amer. Journal of the Medical Sciences* among them), was a voluminous contributor to periodical literature, and wrote a number of works, the most important of which were his *Natural History* 3 vols.; *Rambles of a Naturalist;* a work on Anatomy; a volume of Addresses, etc. He also edited several works of foreign authors and contributed some poetry. He died in 1830. He married a daughter of Rembrandt Peale, who with her children moved to the West after his death. He wrote with great vigor, simplicity, and elegance, and his style might well serve as a model still.

II.

The close of this period (1812-1825), otherwise so distinguished in the number and importance of its events, was further signalized by a duel in which one of the Faculty participated. Our knowledge of it depends almost entirely upon tradition, although some facts relating to it have been derived from those who were contemporaries of the participants, and placed in positions which gave them opportunities to learn the truth with regard to the affair.

The failure of Prof. Pattison to get the much-coveted chair at the University of Pennsylvania led to estrangement between him and the professors there, which gradually deepened into open rupture and hostility. Prof. Nathaniel Chapman, for some reason, became the particular object of his aversion. His removal to Baltimore and the honor of the chair of Surgery in the University of Maryland served only to fan the embers of his wrath, which seemed ready to burst forth on the slightest provocation. On the 12th of October, 1820, he wrote to Chapman asking if the latter was responsible for the statement that the former was the author of an anonymous letter received the previous winter by Chapman through Dr. Eberle. He demanded an immediate answer. Chapman made no reply. Pattison determined to proceed to Philadelphia, at once, for the purpose of demanding satisfaction, and sought the aid of Dr. Patrick Macaulay, of Baltimore, as his second.

By Dr. Macaulay's advice he postponed his departure and on the 17th Macaulay addressed Chapman by letter. He told him that the letter which Pattison had sent had been written by his advice; that he had twice persuaded Pattison to delay going to Philadelphia, and he now asked for some explanation as to Chapman's conduct and intentions. To this letter Chapman replied on the 19th. He began with an account of Pattison's candidacy for the Chair of Surgery in the University of Pennsylvania. A vacancy had occurred in the Chair of Anatomy there, by the death of Prof. Dorsey, to which Prof. Physick had been transferred by the Trustees, May 1st, 1819. This transfer, which was made against the wishes of Physick, was designed to open a way for Gibson. Pattison had been apprised of this action by his brother, who then resided in Philadelphia, and had been advised by him to become a candidate for the position. Accordingly, he forwarded his application and letters of recommendation. On the vote being taken he was defeated, Physick and Chapman strenuously supporting Gibson. He was notified of his defeat on landing in New York. He now settled in Philadelphia, opened a private school and sought to secure some position in the University. He at this time declined a chair at Transylvania University to which he had been regularly elected,* and also an offer from Baltimore. He received many attentions from the profession in Phila-

*To which there was a salary of $1,500 attached.

delphia and his prospects for advancement seemed bright. But his arbitrary manner and a claim to anatomical discoveries which were found to belong to another, estranged his new-found friends, and he was forced, a few months after his arrival, to accept the Baltimore offer which still remained open to him. Chapman went on to speak of the motives which led Pattison to leave his native country. He said that it was in consequence of an odious deed and an incensed public opinion; that he had seen the proof of a trial in which Dr. Ure, one of Pattison's colleagues in the Andersonian Institution, at Glasgow, had obtained a divorce from his wife, on the ground of improper relations with Pattison.* For these and other reasons Chapman refused to have any intercourse with Pattison. On the receipt of this letter by Macaulay, Pattison's rage knew no bounds. On the 23rd he went to Philadelphia and posted Chapman as a liar, coward and scoundrel. He was forthwith arrested, but after a short detention was released. Chapman claimed that it was through his intercession that he was set free. Pattison vigorously defended himself against the charges that had been brought against him, and endeavored to shield himself by attacking the jurisdiction of the court in Edinburgh before which the case had been tried, and by making it appear that the difficulty was merely one between the rival schools of Baltimore and Philadelphia. He had the good fortune and address to enlist the sympathy of his colleagues and a large part of the community here in his behalf, and presenting his side of the case to a committee of prominent citizens he was exonerated from all blame.* At this time Pattison was not 28 years old and claimed not to be a professed duelist."

Chapman endeavored to justify his declination of the duel in a pamphlet which he published in November 1820. His grounds were many of them very absurd. He said that he had received no formal challenge, and even if he had, the disparity of age,† the inequality of social condition, the claims of a numerous family and the obligations imposed by his public station would have prevented his acceptance. "It really would seem" he added, "under any circumstances, not quite fit to have introduced my course of lectures with the spectacle of a duel. The parents and friends of the several hundred young men confided to our care require of us very different things, and assuredly had I yielded on this occasion, I should have had to encounter the heaviest censure and perhaps a more decisive step from those discreet and elevated men under whom I have the honor to hold my appointment. With Mr. Pattison it is entirely different. He is an adventurer with a tainted reputation which he hoped to repair," etc. The discussion thus begun was continued for some time.

Amongothers, Professor Gibson took part in it, dealing severely with Pattison's claims to anatomical discovery. But it was not till four years after Pattison's arrival in America* that this difficulty involved anything more serious than hot words.

The Cadwalladers of Philadelphia have been distinguished for their standing and courage for two hundred years. The first of the name emigrated from Wales where he occupied a respectable position among the middle class. The next was a physician of eminence. General John Cadwallader, of the third generation, was the trusted friend of Washington, and a gallant soldier of the Revolution. He fought a duel with General Conway, the leader of the Cabal against Washington, on the 4th of July 1778. Conway received a wound which

*In Sept., 1821. Chapman published an "Official Transcript of Proceedings in Case of Divorce of Andrew Ure, M. D., v. Catherine Ure, for Adultery with G. S. P." This trial took place January 30th, 1819, in the Consistory Court at Edinburgh. The documents are in the Maryland Historical Society's Library and can there be consulted by any one who desires to do so.

*His career in Baltimore was not a very reputable one morally. He led a "gay" life and so undermined his health thereby that when he left here his recovery was doubtful. He is said to have taken so much mercury that he was afraid to take hold of the door bell for fear of an electric shock" (I give this statement of a gentleman still living for what it is worth). There are many traditions of his amours with ladies of fashion of the period.

†He was a little over 40 at this time.

*Pattison's statement in the *Lancet*. This is the nearest approach to the exact date of the duel that I have been able to find, and would indicate that it occurred about 1823. The newspapers are entirely silent regarding this affair.

was supposed to be mortal, and believing himself to be dying, made a confession of his guilt. General Thomas Cadwallader, a son of the last, was born October 28th, 1779, and died October 31st, 1841. Upon him devolved the duty of maintaining the honor of his native city against our belligerant Scotchman. He and Professor Chapman were brothers-in-law, having married daughters of Colonel Clement Biddle. He became accidentally involved by resenting an insult leveled at Chapman by Pattison in his presence. The hostile meeting took place somewhere in Delaware, but of the particulars we are ignorant further than that both parties displayed great coolness and unflinching courage, and that Cadwallader received a severe wound; the ball of his opponent's pistol entering his pistol arm near the wrist, traversing the entire length of the forearm and lodging in the head of the ulna. It remained there throughout his life, causing great irritation, impairing his health and even, it is said, shortening his life. The ball from Cadwallader's pistol passed through the skirt of his adversary's coat above the waist.*

III.

One other event signalized the close of this, the most brilliant epoch in the career of the University, and it cannot be passed over in silence. In 1824 Lafayette visited America. His progress was one series of ovations and each section vied with the others in its efforts to heap the greatest amount of honors upon the nation's benefactor and guest, the distinguished Frenchman. The authorities of the University, the leading school in the city, determined to confer upon him an honorary title. Accordingly he was invited to visit the institution on the 9th of October, 1824, and there, in Anatomical Hall, in the presence of a noted assembly, received from the hands of the Right Rev. Bishop Kemp, Provost, the honorary degree of LL. D., "with a diploma and a handsome silver box in which to enclose it." It is added that he made "a feeling reply" and was then shown over the buildings."*

*Some of these particulars were derived from a relative of Gen. Cadwallader. An account of the students' duel of 1823 is given further on.

*Federal Gazette.

AN EASY METHOD OF REPAIRING THE PERINÆUM.*

BY JOHN DA COSTA, M. D.,
OF PHILADELPHIA.

There is probably not an operation in gynæcology which gives a woman so much relief as the proper restoration of a torn perinæum.

In describing this operation, I shall not say a word in regard to the anatomy of the perinæum, which is the same as it was a hundred years ago. The same muscles are torn now as were torn then. This subject of tear of the perinæum may seem to be a very simple matter; but when we consider that twenty per cent. of women have their perinæa torn in first labors, and four per cent. in subsequent labors, it ceases to be a little matter, and becomes one of importance.

I do not claim anything new. The operation is the result of a combination of old ideas. It is an easy and simple method of repairing the perinæum, and answers equally well whether the tear is long or short. I thought I had something new in the use of these rubber bars, when I got it up eight years ago, but afterwards found that one of my ideas had been anticipated twenty years before.

Mr. Lane, of London, in 1860, used ivory bars with small perforations, and reports thirty consecutive cases without a failure. Dr. Thompson, of Washington, used flat rubber bars with small holes in them, and reports fifty-three consecutive cases, all cured. Dr. Thomas after speaking of the quill suture, leads us to infer that he used perforated bars, and states that he does not recall a failure in the operation.

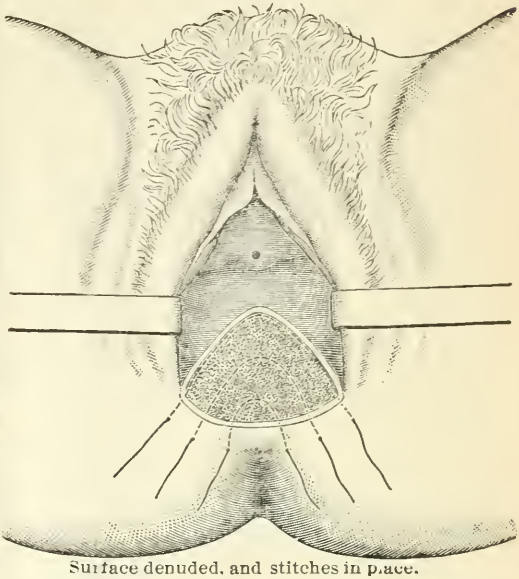
I do not know how many present are believers in the idea advanced four or

*Read before the Obstetrical Society of Philadelphia, September 5, 1889.

five years ago, at the meeting of the American Gynæcological Society in this city, "that there is no such thing as a perinæum;" but there certainly is a triangular body between the vagina on one side and the rectum on the other; and this triangular body is often torn through during labor, and becomes what I call a ruptured perinæum. There are many ways of repairing it. Some are very simple, some are very striking, but very useless; what I strive to do is to restore the perinæum very much as nature made it. The operation is easy, and the armamentarium is simple. We require a pair of scissors (I use a pair of blunt-pointed scissors), a perineal needle, a little silver wire and shot, a shot compressor, and two bars shaped like the cut.

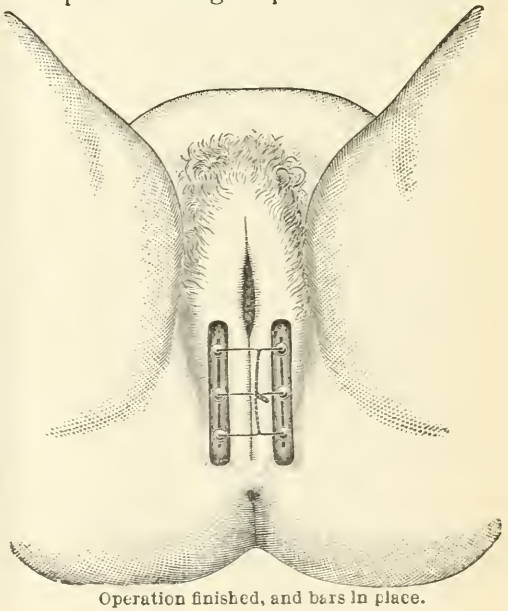
Bar, ½ size.

The operation is begun at the bottom of the tear in the vagina. With one or two fingers in the rectum, I make a little slit at the lowest point, and denude subcutaneously all the tissue that has been torn. I do not know how far up I go—it may be two inches, or even nearly the length of the finger. This depends altogether upon the extent of the tear. The important thing is to get rid of all the scar tissue. Unless this is done, good union will not be secured. After denuding up the proper distance, the scissors are turned to the right and to the left, and each side denuded. Then, with four cuts of the scissors, the loosened cicatricial tissue is removed. A denudation of this kind freshens the torn perinæum as I think no other method does. The first stitch near the bottom of raw surface is passed three-fourths of an inch from the edge of the cut portion, buried in the tissue the whole distance, and comes out at the same distance on the other side. The needle is then threaded with silver wire and withdrawn. The second stitch is put in in the same way. The third stitch is started in the skin like the others, and three-fourths of an inch from the edge of the cut, carried along just under the edge of the denudation the whole way around. This is the most important stitch of all. It was the idea of the late Albert H. Smith, when one of the physicians-in-chief at the Nurses' Home some years ago. The stitches are buried throughout, and only three are used in the operation. All that is necessary is to bring them out in nearly a straight line.



Surface denuded, and stitches in place.

The wires are then slipped through slotted rubber bars, on each side, and shot clamped on them. After the shot are clamped, the ends of the wires are twisted over the median line, and the ends passed through a piece of catheter



Operation finished, and bars in place.

In twenty-four hours there is swelling and a certain amount of inflammation. I then cut the wires off close above the shot, and this at once relieves the tension and the pain. Any desired dressing may then be applied, if it is thought advisable to use any dressing.

What are the advantages of this operation? In the first place, you have but three stiches. I think that probably every gentleman has seen perinæa operated on where there has been deep quilting, and have seen the tissue slough out because the circulation has been so interfered with that nutrition could not be maintained. These three sutures interfere very little with the circulation, and they hold together the deep parts of the wound, which is very important. When inflammation takes place, you cut the wires over the shot, the bars spread and relieve the tension and prevent any tendency to sloughing, while still supporting the parts.

After the wound is closed, you may take a piece of catgut and whip up the edges in the vagina, and along the line of the raphé. This is not necessary unless we want to make a very perfect job. The operation is easily and quickly performed. I have never timed myself, and never tried to do the operation in a hurry, but I accidentally found out how long it takes.

On one occasion, in thirty minutes from the time that I began, I had operated on two cases, and included the time necessary to put one patient under ether from perfect consciousness to unconsciousness. The denudation is accomplished in four or five minutes.

This is a different operation from that in which the denudation is made in curved lines, and where another operation is required for any existing rectocele. The operation described above will include also a rectocele. It is better than another popular operation, which does not restore the triangle which nature made, but makes a beautiful skin-flap, which looks well from the outside, but affords no support.

I do not claim anything novel. It is simply a combination of ideas that I have picked up from time to time. In regard to the results of the operation, it is a rare occurrence to have a failure.

THE TREATMENT OF SUCH EAR DISEASES AS ARE USUALLY SEEN BY THE GENERAL PRACTITIONER.

BY HIRAM WOODS, M. D.,
BALTIMORE, MD.

Assistant Surgeon at the Presbyterian Eye, Ear and Throat Hospital, and Professor of Diseases of the Eye and Ear at the Woman's Medical College, Baltimore.

THE MIDDLE EAR. ANATOMY. ACUTE CATARRHAL INFLAMMATION.

PAPER VI.

The diseases of the middle ear, which properly belong to the subject of these papers, are not so numerous as those of the external ear. At the same time they are more important. They are much more frequent; they impair the functions of the ear to a greater extent, and are dangerous to life if neglected. They stand toward diseases of the general system as both effect and cause. On the one hand they occur in the course of the exanthemata, diphtheria, typhoid fever, etc., and on the other, they produce necrosis of the temporal bone, inflammation of neighboring parts, cerebral meningitis, and even pyæmia. Too much importance cannot be attached to their early recognition. Practically, however, vastly too little is.

Following the plan given at the outset, those troubles in which impairment of the hearing is the leading symptom, as well as most of those which require operative treatment, will not be considered. This removes chronic non-suppurative diseases (adhesive aural catarrh, etc.), as well as the greater number of troubles resulting from neglected suppuration—as necrosis, hyperostosis of the canal, mastoiditis, etc. These complications, I submit, are too serious to be attended by one who has no better opportunities for studying and treating aural diseases than are usually possessed by our general practitioners. The subject of middle ear diseases is thus reduced to acute aural catarrh, acute suppurative otitis media and chronic suppurative otitis media. These are practically different stages of the same pathological process. An unrelieved

aural catarrh ends in the filling of the tympanic cavity with a serous or purulent exudation. This leads to perforation of the drum membrane and we have acute suppurative inflammation. This, in turn, produces granulations and polypi in the tympanum, fills the antrum and mastoid cells with pus which there hardens, and these results soon produce "chronic otorrhœa." The steps from this to mastoiditis, necrosis of the temporal bone, etc., are manifest.

Before taking up the study of acute aural catarrh, it will be well to briefly recall a few facts about the anatomy of the middle ear. The middle ear consists of the drum membrane, the tympanic cavity, which contains the ossicles —malleus, incus and stapes—the Eustachian tubes and the mastoid cells. The tympanic cavity is lined with mucous membrane continous, through the tubes, with that of the naso-pharynx. It also connects, through the opening in the posterior tympanic wall with a thin membrane lining the mastoid cells. Thus there is one continuous mucous tract from the mastoid cells to the pharynx. The outer wall of this cavity is the drum head, which is also lined with mucous membrane. The inner wall presents the oval and round windows, the former being filled with the base of the stapes, the latter occupied by the secondary tympanic membrane. Through these windows the middle and internal ears communicate. The upper wall is a thin plate of bone separating the tympanic from the cranial cavity. Politzer estimates the thickness of this roof, above the head of the malleus, as 5 to 6 mm. At times it is much thinner, and Roosa says it is occasionally "entirely wanting, so the tympanum forms a part of the cranial cavity." According to Politzer, there is a suture in the upper tympanic wall at birth through which, "in the new-born infant, processes of connective tissue, containing blood-vessels, pass from the dura mater into the tympanic cavity." This, he says, accounts for the presence of cerebral symptoms in children suffering from inflammation of the middle ear. The lower wall of the cavity separates it from the jugular fossa. It is pierced by minute blood-vessels. Add to all this that the carotid artery is separated from the tympanic cavity by a thin bony plate and that the aquæductus Fallopii, containing the facial nerve, runs along the inner wall, and we can easily see how the following from Dr. Roosa's work can be true: "In caries of this (upper) wall the patient may die of purulent meningitis." "Caries of the lower wall may be followed by phlebitis of the jugular vein, while caries of the inner wall has sometimes caused destruction of the coats of the carotid artery and fatal hemorrhage, also a suppurative inflammation of the labyrinth." "Even a non-suppurative inflammation of the tympanum may affect the facial nerve, since, during a part of its course, the nerve is separated from the mucous membrane only by a thin plate of bone, which may even be deficient in many places." I have seen cellulitis of the tissues in the angle of the jaw caused by suppurative otitis. I have never had a case of hemorrhage, or of phlebitis.

"Acute aural catarrh," or "acute catarrhal inflammation of the middle ear" is usually manisfested by severe pain. The majority of cases of "ear-ache" belongs to this disease. With the pain there are other symptoms which Dr. Roosa gives, as follows: "A sense of fulness in the ear," "noises in the ear," and "an unnatural, hollow sound of one's own voice." "The impairment of hearing is not always marked in the stage of pain." It "may even be augmented." (Roosa.) This, it seems to me, is only true before exudation has taken place into the drum. After this if the membrane is still unyielding, there is often severe pain, while there is also impairment of hearing. As a rule pain overshadows everything else, and the other symptoms are taken very little into account.

The disease may develop suddenly when the patient is in good health, or it may appear as an intercurrent disease during the course of some other trouble. Unless relieved by treatment, the pain terminates when a serous or purulent discharge appears in the meatus. From the histories given me

by patients whose ear trouble had come on during measles, scarlet fever and other diseases, I am led to think that the stage of pain, or congestion, is shorter in secondary than in *primary* otitis media, and that the discharge appears sooner.

The objective appearances are (Roosa)—1. Vascular injection; 2. Bulging outward of the membrana tympani; 3. Impairment of hearing; 4. Catarrh of the pharynx and Eustachian tubes; 5. Fever.

Treatment: This should be directed toward stopping the pain *without allowing the discharge to appear*: in other words it should be prophylactic. The formation of pus should not be encouraged by poultices or treatment postponed till nature brings relief. Now and then prophylaxis fails, and in spite of all efforts suppuration developes. But it is thoroughly wrong to wait for this, when so much can be done to relieve pain and to save the ear. When "earache" appears either independently or in the course of another disease, the ear should be carefully examined at once. If there is doubt as to the exact seat of pain, as may happen in the case of little children, pressure in front of the tragus will often show that the ear is at fault. Examination with the speculum and reflector will enable one to make the diagnosis. In acute aural catarrh the drumhead will be found injected. This injection may be nothing more than a marked redness along the handle of the malleus and the upper part of the membrane. At other times the membrane will be livid red over its entire surface, so that it is impossible to discern the outlines of the malleus. At a somewhat later stage the red drumhead will be found bulging outward—its convexity toward the external canal. There may be congestion along the osseous walls of the canal, and if the fauces be examined they will be found acutely inflamed. In the exanthemata the inflammation of the ear is really an extension of the pharyngitis through the Eustachian tubes.

I think the appearance of the drum head is the most important factor in deciding the proper line of treatment. I almost always employ one of the following:

1. The instillation of atropia and cocaine into the canal, with the internal administration of a purge or else large dose of Dover's powder.
2. Leeches.
3. Paracentesis of the drum membrane.

The use of atropia and cocaine in the early stage of acute otitis media was first suggested to me by remarks made at the Clinical Society of Maryland, by Dr. Samuel Theobald. I have used it once in a case of scarlitinal otitis with the happiest results. Dr. S. W. Seldner asked me to see with him a little girl, six years old, recovering from scarlet fever. A few days before an otorrhœa had started in the left ear after a few hours pain. When the same premonitory symptoms appeared in the right ear, he asked me to examine the child. I found a painful ear, the pain increased by pressure in front of the tragus. The upper part of the drumhead was congested as also that part of the membrane along the handle of the malleus. I instilled into the ear a few warmed drops of the atropia and cocaine solution already spoken of. Relief soon followed. I directed the parents to make an application every 2 hours, and to let me know if the pain returned. I was not summoned, and when I called the next day, I found the child easy, and the drumhead free, or nearly so, from injection. With the same objective appearances, I have gotten good results from purging the bowels with calomel. Dover's powder—15 to 20 grains in a single dose—I have seen relieve the pain promptly with such slight congestion as mentioned. It has failed me in three cases lately, however, and I have not so much confidence in its efficacy as formerly.

Leeches are decidedly the best remedy we have. When the drumhead is red over its entire surface, as well as in the milder cases described, they do excellent work. They should be applied *in front of the tragus*—from two to six of them, according to the age of the patient and the severity of the inflammation—and allowed to suck till they drop off. Then the oozing should be kept up for an hour

or so. The pain is relieved, and the disease usually cured. Dr. Buck describes an artificial leech for ear work recently introduced by Dr. Gorham Bacon of New York. I have never used it, but propose to do so. Dr. Buck thinks it is as effective as the natural leeches.

Paracentesis of the drumhead evacuates the exudation in the tympanum the presence of which is indicated by the bulging of the membrane. After this the inflamation subsides.

To summarize: If the drumhead is slightly congested, and the pain has not lasted over two or three hours, the atropia and cocaine solution may be employed. If the pain be not relieved and the injection reduced in four to six hours apply leeches. If the pain is of longer duration than a few hours, and the drum head injected over its entire extent but not bulgin,gapply the leeches. If it bulges, paracentesis should be performed at once.

HÆMATOMETRA.*

BY FERDINAND H. GROSS, M. D.
OF PHILADELPHIA.

In the experience of most of us, hæmatometra is of infrequent occurrence. This rareness, and not that I have anything new to say on the subject, is my chief inducement for reporting to the Society with some detail, two cases of this hæmatic tumor, which came under my observation in the early months of the current year, indeed, the case to be presently mentioned, afforded me the first opportunity in a good many years of experience as a practitioner, of estimating more clearly after a personal examination, the signal importance of the condition. But in the lapse of only a few weeks, a second case presented itself for my treatment. Atresia of the vagina I had repeatedly observed, but never its contingent, hæmatometra.

In the cases to which allusion has just been made, the atresia existed, in one, at the lower end of the vaginal tube, while in the other it consisted in an obliteration of the cervical canal of the uterus; and thus were exemplified two interesting varieties of the occlusion.

A young girl who had been under the care of different physicians without the souce of her troubles being fully recognized, was referred to me by a medical friend for treatment, with the information that a tumor occupied the vagina and filled up the lower pelvis.

The patient was in her fourteenth year, and therefore at the age of puberty, but she had never menstruated, this is to say, no visible signs of the catamenial flow had been noticed. The first disturbances of her health had occurred about six months before, and although she never felt quite well afterward, her disposition for a time caused no apprehension. But a number of subsequent paroxysms of augmented severity attracted anxious attention. In short, the alarming character of the exacerbations led to a physician being consulted.

When later on, in an advanced stage, the case was referred to me, a digital examination of the vulva revealed protruding therefrom a smooth and very tense swelling, in which the experienced touch could readly detect fluctuation, a feature of the mass very clearly evinced by the rectal exploration. Neither the examining finger nor the probe could find anywhere between this protrusion and the labia an entrance to the vagina. The hypogastrium had become prominent from a tumefaction which arose from the pelvis. The enlargement in the course of its development had been noticed to be most sensitive during the above-mentioned paroxysmal attacks, which were doubtless the regular menstrual molimina. The continuous abnormal pressure upon the pelvic organs was the occasion of vesical and rectal tenesmus as well as obstipation; and restless nights were the inseparable accompaniments of such torments. But aside from these there were symptoms of a subjective character, such as headache, giddiness, nausea and other gastric distress, a feeling of painful fulness in the abdomen, palpitation, and disturbed vision which the prescribed glasses of the oculist had failed to relieve. This complex of distressing and long-enduring

*Read before the Philadelphia County Medical Society, September 11, 1889.

symptoms was sufficiently pointing to lead to the diagnosis of hæmatometra as a contingent upon atresia hymenalis.

It is not my purpose here to recount with exhaustive minuteness the various results of hæmatometra if relief be not given in good time, by what is usually a simple surgical expedient. Nor would the time allotted permit me to speak of the lesion as it occurs in double vagina, in duplex uterus, and in other malformations of the female generative organs. Greulich relates in concise form, but with sufficient clearness, the different issues of this condition, and cites an array of authors who appear in the literature of the subject; but some of the results of this blood-tumor should not remain unnoticed in this place. Much may depend upon the period of life at which the atresia has been acquired. For example, in climacteric age the hæmatometra may eventually be tolerated,* or at least borne with less suffering or discomfort, since at this period of change the tumor may cease to enlarge because of the discontinuance of the menstrual secretion. But also at periods prior to the menopause, the rapidity or slowness with which the uterine accumulation takes place, and consequently the degree of its evil effects upon the general organism, may depend upon the character of the patient's constitution, whether this be plethoric and robust, or weakly and anæmic. If the latter be the case, the increase of the pent-up menses may be very meagre or even nil; and again, if vicarious menstruation be established, the addition in utero would naturally be avoided, affording a degree of local relief, or at least checking for a time the progress of serious symptoms, provided the locality of the vicarious functions be a safe one.

Among other possible results of this bloody accumulation are enumerated hæmatosalpinx, intraperitoneal hæmatocele, and hæmatoma of the ovarium, each with it serious consequences. The internal ostium of one or both Fallopian tubes may be drawn open by the expansive force of the womb's accumulating contents, which, if not met by tubal obstruction, may ooze out at the ostium abdominale and give rise to an intraperitoneal hæmatocele and peritonitis. In hæmatoma of the ovarium the formative process is likely to be different. Whether at certain periods of functional activity, when the fimbriæ of the tube are said to clasp the ovary to receive the ovule from the bursting Graafian vesicle; or in other words, whether, at the time of direct communication between tube and ovary, the fluid of the hæmatometra ever escapes into the bursting vesicle or stroma of the gland, I must leave to hypothetical speculation. But hæmatoma of the ovarium as well as effusion into the tube may occur by direct extravasation from congested vessels and yet hæmatometra be responsible for either occurence, since hyperæmia of the uterine appendages is one of the accompaniments or conditions of the hæmatic tumor we are considering. If therefore, the already engorged plexuses or network of vessels of the environment be periodically subjected to additional blood-pressure, the bleeding that follows the bursting of a Graafian follicle under normal circumstances may now become sufficiently copious to produce results of pathological character.

Without stopping to speak of a possible rupture which would allow the secretions to flow off in a natural or harmless direction, adhesions may form with the neighboring hollow organs and perforation take place into bladder or rectum. Septicæmia from decomposition within the womb is here the greatest danger. The entrance of urine on the one hand, or of fecal matter or intestinal gases on the other, would be favored by the womb's enfeebled contractile power, as that organ could not empty itself with promptness nor with that degree of force of which it is possessed when developed for a physiological purpose. The pressure of tumors is recognized as a cause of uterine atrophy and we can readily conceive in hæmatometra the attenuated condition of the muscular coat. Another danger of infection might be a vaginal culde-sac below the point of perforation into either of the hollow viscera mentioned, which would serve as a reservoir for decomposed matter.

*Real-Encyclopædie der gesammten Heilkunde, vol vi., page 180

Considering the possible results of this condition, no time was lost in providing for the escape of the accumulated secretions.

Hymen imperforatum in a large majority of the cases is not discovered before the age of puberty, and the one referred to was doubtless of the congenital variety.

The operation can hardly be called a painful one, but the girl had become so irritable and sensitive from long suffering and repeated examinations, that the puncture by trocar was made under the ether narcosis. Thirty-two ounces of reddish-brown, chocolate-colored fluid were drawn off without interruption of flow. The canula being removed, a crucial incision with a probe-pointed bistoury enlarged the opening, whence a little fluid continued to ooze. Ergot was administered, but only gentle pressure was applied externally by an abdominal binder. The vagina was gently washed out with a weak solution of the bichloride. The uterus remained too high to be reached by the finger, and an examination per force was uncalled for. The vaginal surface was smooth and devoid of its rugæ. As an additional precaution, the pudendum was covered with compresses of antiseptic gauze.

It is to be remembered that the imperforate hymen is not a normal but a patho-anatomical structure. On the inner side its mucosa is continuous in cul-de-sac form with that of the vagina, and externally the mucous membrane is continuous with that of the vulva, while between these layers lies a fold of connective issue. The membranous barrier in this case was found thick and tough beyond expectation, imparting the feel of soaked leather.

The relief was prompt and decided; on the second day there was some pain in the hypogastrium, but no significant rise in the patient's temperature. In four weeks the menses were discharged in a normal manner, and this has recurred at regular intervals ever since.

In the second case alluded to the woman is close upon forty years of age, and has lived in the marriage relation for half that period, but remains childless. The evidence she relates as pointing to a miscarriage in the third year of her married life, is not conclusive. After that time she enjoyed good health until thirteen years ago, when she "had a severe fall backward," after which she endured so much pain in trying to void her urine that she fainted. Her physician said she had "dislocated her womb," and used instruments to replace it. She was confined to bed for three weeks and then treated in a hospital in this city, whence she returned home, still in a feeble condition, and remained in poor health for several years. These early troubles are briefly mentioned since they concerned the genito-urinary organs, but I will not tax your patience with a history of subsequent maladies which had but doubtful or no connection with the patient's later complaint. Suffice it to say, that after an attack of typhoid fever as far back as 1883, she regained her former good health, and in all the years that followed until the month of May, 1888, the menstrual function was regularly performed. It was then, however, that the lesion which concerns us as here appears to have had its beginning. The monthly discharge of blood became scanty, and to the patient it appeared as though "a stringy leucorrhœal discharge had replaced the regular flow." Nor was she as free from pain as she had formerly been during her regular turns. In the following August her menses failed to appear, and the amenorrhœa continued for eight months; that is to say, until she was relieved by the operation to be mentioned further on. As regular as had been her monthly turns, just so regular were during those eight months; the attacks of lumbar pains and uterine cramps, the severity of which increased with each returning molimen. In vain she now applied for relief both to regular and irregular practitioners. The latter advised her to enter their hospital and submit to a laparotomy for the removal of what they pronounced to be a "fibroid tumor attached to the uterus and left ovary." This advice was not followed, and it need hardly be

said in this presence that the diagnosis was as incorreet as the laparotomy would have been unwarranted. The condition grew from bad to worse. From dire necessity the woman had learned to catheterize herself and was enabled by that means to get frequent relief from one of her greatest torments.

On the 30th of last March she entered the German Hospital, where she became my patient. On examination the next day, I found a large, smooth, very hard and firm tumefaction pressing low in the pelvis. The os could not be found and there was no discernible discharge from the vagina. Fluctuation was not at all perceptible, either by the vaginal or rectal examination. The mass had repeatedly been held by others to be a fibroid; but on hearing the patient's own account of the case, from which the above is a condensed statement, I declared it to be a Hæmatometra, at once verified the diagnosis with an aspirator-needle, and on April 2d introduced an ordinary sized trocar to draw off the long pent up secretions. In penetrating at the indistinct but supposed point of the former os, the instrument imparted the sensation of passing through a wall of considerable thickness before reaching the cavity, showing the obstruction to be something more than membranous. It was probably brought about by a stenosis of the inner os, combined with an endocervicitis and adhesions of the entire cervical canal.

The mahogany-colored, jelly-like fluid, or semi-fluid, could not flow freely through the cannula of the trocar, but came only drop by drop. The cervix dilator therefore replaced the cannula, and being used as a director for making a shallow crucial incision, a quart of the tarry substance was drawn off. The cavity of the womb was freely washed out with a continuous stream of the mercuric solution. Ether was not administered. The after-treatment was in the main similar to that instituted in the other case. Recovery was complete, and the patient has several times since the operation menstruated at regular periods.

Dr. T. Gaillard Thomas has resigned his position as Professor of Clinical Gynecology in the College of Physicians and Surgeons.

Suicides in France.—The Paris correspondent of the *Medical Press* writes, under date of July 13, 1889, that in the last sixteen years the number of suicides increased in France 55 per cent. Their proportion in regard to the population rose during that period from 15 to 21 per 100,000 inhabitants. In 1872 the total number of suicides was 5,275, while in 1887-8,202 were registered. Women, as in other countries, are less prone to self-destruction than men—1,768 (22 per cent.), against 6,434 (58 per cent.). The frequency of suicides increases with age. Up to the fortieth year the propensity is about the same in both sexes, but after that the men take the lead. There were 2,894 unmarried, 3,706 married while 1,355 were widows or widowers. As to the social condition, 2,614 were in agricultural pursuits, 2,276 belonged to varied industries, while the remainder were in business, or were householders, domestics, clerks, etc. The rural population furnished a higher number of suicides than the urban—4,279 of the former to 3,807 of the latter. As to the period of the year, summer and spring furnish the largest contingent. The means employed were chosen in the following order of frequency: strangling, immersion, fire-arms, asphyxia by charcoal, sharp instruments, poison, precipitation from heights. The presumed causes were, insanity, 2,023; physical suffering, 1,407; poverty and reverse of fortune, 1,059; domestic affliction, 1,116; drunkenness, 914; disappointed affections, 305; etc. In the above list, alcoholism producing cerebral affections takes the first rank. During the last fifty years the consumption of alcohol has increased three-fold, and the number of insane persons four-fold. The liquor which contributes the most to producing mental derangement is absinthe, of which the French are so fond. When a man gets in the habit of taking that drink, he is sure to commit some crime or destroy himself.—*Science.*

Dr. Voltolini the celebrated laryngologist and otologist of Breslau, and Dr Jacobson the ophthalmologist of Köngsberg are dead.

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BALTIMORE, OCTOBER 19, 1889.

Editorial.

THE ABUSE OF THE DISPENSARY.—Since the opening of the Johns Hopkins Hospital Dispensary in May last there have been treated there over five thousand cases. As it was not supposed that so many new cases of sickness occurred in the city, or that the city had become more unhealthy in the past six months, it was natural to ask where these additional five thousand dispensary cases came from.

Unfortunately for some practitioners of this city, this question is gradually being solved. Of course many patients in the neighborhood of this hospital who went to more distant dispensaries, turned to the one nearest home; but apart from these it has been noticed that patients who had formerly had their own physician and had paid him, have found it much cheaper, and perhaps more satisfactory, to go to a well-appointed dispensary where both attendance and medicine are free. To the physicians in the Eastern section of the city this has made no small difference. If such a thing were practicable all the dispensaries in the city should agree on turning away patients able to pay. Probably none do this to any great extent, although it is known that in some departments of the Johns Hopkins Dispensary they have been turned away because they acknowledged having an income which in the physician's judgment was large enough to allow them to pay a physician. Still this is by no means done systematically and the only remedy would be for the head of the hospital and dispensary to employ one or two assistants, whose entire business would be to inquire into the pecuniary condition of doubtful cases.

One thing, however, must be granted. Physicians in a hospital or dispensary in any department, are, all things being equal, more able to treat cases successfully in their department than a physician not in such an institution who sees a limited number of cases in a year. Patients who have probably spent much money for doctor's bills and medicine without improvement and not feeling able to go on in this course, are frequently driven to a dispensary for relief, and they frequently find it. Again the poorest patient, visiting the dispensary for the first time, tries to appear to the best advantage as to clothes and cleanliness, especially if an examination is in view. These poor patients are often misjudged.

But on the whole the number of patients who receive gratuitous aid un-

deservingly in a year is very large, as all those who have thought over this hackneyd theme very well know.

But what is the use of agitating a subject unless some measure of relief is suggested? As long as the city contains so many dispensaries, many of which are connected with a college competing for material, little or nothing will be done.

If, however, the heads of the large dispensaries would unite with the Charity Organization Society and contribute what they know of doubtful cases probably much of the above would be averted, and the fear of such a united detective service would keep the pay patients from the dispensaries. To be sure many such patients may be able to pay at one time and too poor at another, according to the work they get, and much of such practice is made up of our newly-made citizens who have come over to vote, although they cannot speak the language. Still dispensaries should not assist in pauperizing the public, as such injudicious help surely does. All the dispensaries do wrong in in this direction, but the newest and wealthiest one has it in its power to establish a reform.

Creosote in Diseases of the Air Passages.—The use of creosote in diseases of the air passages in general, and in beginning pulmonary consumption in particular, has been praised so highly that, honest record of fifty cases by a man evidently no enthusiast is well worthy of perusal.

Dr. William Perry Watson (*Virginia Medical Monthly*, October, 1889.) has used it by inhalation and internally and in about the way laid down by Beverly Robinson. He found it an excellent remedy for the laboring classes and dispensary cases, because it is cheap, easily applied and gives early results:

"Of the above unselected fifty cases of diseases of the air-passages, eight were in the last stage of consumption, and while improvement was noticed for a few days after the creosote treatment was used yet it had no permanent effect. Of the sixteen cases with simply consolidation, the improvement was so marked in all cases but two (one complicated with chronic Bright's disease and one with consolidation at both apices), that they were discharged from the hospital. Of the six cases of chronic bronchitis, some with emphysema, others with pleural thickening, all were markedly improved by the treatment. Of the five cases of acute bronchitis, all were rapidly cured. The case of acute pleuritis, with effusion, was quickly cured. The cases of laryngeal phthisis were improved. The case of acute laryngitis was cured by the inhalations alone. The cases of nasal catarrh, as a complication, were quickly cured.

The conclusions to be drawn from the foregoing report of cases are, that while creosote will not cure all cases of consumption, yet it will benefit nearly all; that in some cases with simply consolidation before the "breaking down" process begins, it seems to arrest the diseased process, and further investigations will be required to ascertain its permanent utility, although similar cases observed for a long time by Robinson and Flint would convince us that the improvement was lasting.

In acute and chronic cases of the bronchitis, its use was very marked, cases of the former being quickly cured, while those of the latter were improved sufficiently for them to leave the hospital in a short time. Another very important fact noticed in these experiments was that the more constant the inhaler was worn, and the internal mixture taken, the more marked was the im-

provement; so that I am satisfied that, to obtain the full benefits of this treatment, the system should be saturated with the creosote as rapidly as possible; and while I should not expect any miracles, yet I believe it is, combined with good hygienic and dietetic surroundings, the most promising treatment of consumption in the laboring classes we yet possess."

Miscellany.

The Urine in Pernicious Anæmia.—Dr. William Hunter, of Cambridge University, England, who last year published some interesting and important observations regarding the symptomatology and pathology of pernicious anæmia, has now supplemented these in the *Practitioner*, for September, by other observations on the urine in a case of this disease,—observations which he thinks show that the urine in pernicious anæmia presents specially characteristic features, and such as serve to establish the diagnosis of the disease.

A relatively high hæmoglobin percentage to the number of red blood corpuscles Dr. Hunter considers to be the only characteristic feature presented by the blood in pernicious anæmia, but he is of those who regard pernicious anæmia as a distinct and separate disease, not merely as an extreme form of anæmia or chlorosis or the terminal stage of other diseases.

In the case under observation the color of the urine was the most striking feature throughout. It was exceedingly high, varying slightly from time to time, but always remaining very much higher than ever observed in conditions of health. At no time were any bile pigments to be detected. As regards its spectrum and its chemical behavior, the coloring matter present in such large quantities had all the characteristics of pathological urobilin; and there is no doubt that in all cases such urobilin is a product derived from the disintegration of hæmoglobin. The richness of the patient's urine in coloring matters could have had absolutely no relation to the absorption of matters derived from the food, as this was as little nitrogenous as possible, and consisted mainly of milk. The excretion of such large quantities of coloring matter, enterly independent of the occurrence of fever or of any diminution in the quantity of urine or rise in the specific gravity, was regarded by the observer as of the greatest interest and importance in its bearing on the diagnosis of the disease; Dr. Hunter is disposed to maintain that the excretion of such large quantities of pathological urobilin appears extremely valuable evidence as to the essential nature of the disease, that it depends on an excessive destruction of blood, that it is hæmolytic in its nature.

In his former observations, his conclusions regarding the hæmolytic nature of his disease were based solely on (1) a consideration of anatomical changes to be found after death, and (2) on the possibility of inducing experimentally similar changes in animals by the action of blood-destroying agents.—*Boston Med. and Surg. Journal.*

Death from Sublimate Irrigation after Abortion.—Seven years since, Tarnier introduced the practice of washing out the vagina with weak corrosive sublimate injections. The results proved satisfactory, and the injections came into vogue in German and English, as well as in French, lying-in hospitals, extending freely into private practice. Like every thorough method of counteracting deadly agencies in the human organism, sublimate irrigation is not free from danger, and although it greatly reduces the death rate and proportion of puerperal fever cases in long series of labors, some cases of mercurial poisoning will occur in those series, notwithstanding the most careful administration of the remedy. In this country Drs. Dakin and Boxall have published very minute observations on mercurialism under the above-noted conditions; they appeared in the *Transactions of the Obstetrical Society* for 1886 and 1888. Dr. Legrand

read before the Anatomical Society of Paris, in April, a case of twin abortion, retained placenta, and death from acute mercurialism. Between the birth of the first and second child, 10 litres of a 1 in 2,000 solution of sublimate were employed to wash out the uterine cavity, twice at an interval of three hours only. Immediately after each injection of sublimate, a 2 per cent. solution of boracic acid was thrown up into the uterine cavity; but sublimate had been several times employed for vaginal injection. After the extraction of the second child the boracic solution was injected into the uterine cavity. The intra-uterine injections were discontinued, and boracic and carbolic solutions were used for the vagina. A day later gingivitis, salivation, colic, and dysentery set in, and carried off the patient in five days. The kidneys were large, pale, and very œdematous; they contained mercurial salts in solution. The palate was ulcerated, the œsophagus, stomach, and small intestine healthy. The mucous membrane of the entire large intestine was covered with eschars and ulcers, most marked on the summits of rugæ. The ulcers began in the cæcum, were least abundant in the transverse colon, and most marked towards the anus. The above conditions have been noted in many other cases of death after sublimate irrgations in childbed. The kidneys were diseased. Keller, of Berne, has already pointed out the danger of mercurial irrigation when these organs are not healthy. The English authorities just quoted both dwell on this danger. Dr. Legrand relates that the ulcerated intestinal mucosa swarmed with bacteria. This fact, he adds, must make us despair of ensuring intestinal antisepsis by means of corrosive sublimate.—*The British Med. Journal.*

Potassium Bromide and Belladonna for Enuresis.—Dr. J. T. Richards recommends very highly a combination of belladonna with bromide of potassium in the treatment of nocturnal incontinence of urine. He reports two cases in the *British Medical Journal*, of June 22, 1889, in which this mixture was effectual after belladonna alone and several other drugs had notably failed.—*Med. Record.*

Getting up for Medicines at Night.—Innumerable mistakes have been made through persons getting up at night to take or administer a dose of medicine. We have heard few sadder accidents, however, than that recorded of the wife of a well-known physician of Harlem. She had been suffering from insomnia, and got up to take a dose of bromide which she had been accustomed to use. By mistake she swallowed the contents of a bottle of Majendie's solution of morphine, taking sixteen grains of the drug altogether. Despite every effort she died in three hours.—*Med. Record.*

Constipation in the New born.—In the *Lyon Medical* for August 4, 1889, Dr. Eloy pubishes the following formulæ for the treatment of constipation in the new-born.

Monti and Widerhofer prefer mannite to manna in the treatment of constipation in new-born infants. Dissolve five to ten parts of crystalized mannite in 50 to 100 parts of water, one teaspoonful of this solution being given every two hours.

A preparation in great favor in Austria has the following composition: Powdered rhubarb-root, 45 to 75 grains; carbonate of magnesia, 45 to 75 grains; oil of fennel or anise, 80 drops. A pinch of this powder may be given three times daily.—*Boston Med. and Surg. Journal.*

Cause of Gastric Disturbance in Phthisis.—Dr. Grusdeff suggests that the gastric disturbances so frequently associated with phthisis may be, in part at least, due to the copious night sweats, and that the indigestion so often met with in soldiers may very probably be connected with the large amount of perspiration occasioned by their long marches and heavy fatigue duty. He has found by a series of experimental observations that when a large amount of perspiration is induced in healthy subjects, the acidity, the quantity of free hydrochloric acid, and the digestive power of the gastric juice are diminished, and also that the quantity of the fluid secreted by the stomach is less than under ordinary circumstances.

These, effects, too, are not so transitory as might be imagined; their extent and duration depend upon the condition of the individual, and on the amount of the perspiration. Under some circumstances they persist for twenty-four hours. No effect appears to be produced upon the pepsin of the gastric juice or upon the acids of the urine.—*Lancet*.

THE DOCTOR'S PORTRAIT.—"After his death, a physician's outstanding bills are rarely collectable. Many a one, with a large practice dies, and his estate is found to be not worth administering on. According to Dr. Jarvis' tables, the average of the lives of physicians is fifty-six years. If you begin practice at twenty-four, your active-life prospect will be thirty-two years, and from a thousand to fifteen hundred dollars will represent your average yearly income. Now, were you (through God's mercy) to practise these thirty-two years without losing a single day, and collect (say) eight dollars every day of the time, you would receive but $93,440. Deduct from that amount your expenses for yourself and your family, your horses, carriages. books, periodials and instruments: your taxes, insurance, and a multitude of other items for the whole thirty-two years (11,680 days), and then, so far from being rich, even after this long and active life of usefulness in this most important and honorable profession, after a whole life-time of scientific work, mental toil and slavery to our unrelenting taskmaster, The Sick Public; from the days of the dirty, unwholesome dissecting-rooms, through all life's phases, to old age; with not even the 1,564 Sabbaths to call your own—you would have but little, very little, left to support you after you naturally reach the down-hill of life, or are broken down in health and faculties deteriorated, and in need of a physician yourself, through worry, anxiety and fatigue in the discharge of your duty."—*Dr. Cuthell in last Edition of Physician Himself.—N. C. Med. Journal.*

PILSNER BEER AS A DIURETIC.—Dr. Gruss, of Vienna, had a patient with heart trouble who was passing very small quantities of water. He told him to drink Pilsner beer, and the quantity of urine passed rose almost at once from thirteen to fifty ounces a day. This remedy will doubtless become very popular.—*Med. Record.*

THE REDUCTION OF HERNIA DURING COUGHING.—It is an undoubted fact that coughing will produce or bring down a hernia; it is therefore somewhat surprising to hear that coughing may be useful in the reduction of hernia. M. Vandenabeele, however, has frequently found that hernia which had resisted attempts at reduction by taxis alone yielded when the patient was directed to cough during the manual efforts to compress the sac. M. Vandenabeele's observations included both inguinal and femoral herniæ, and were not confined to either sex. He believes that during the act of coughing the hernial ring dilates somewhat, and that if well-directed taxis is employed just at the right moment most cases will yield. —*Lancet.*

NEPHRITIS AND ALBUMINURIA IN THE TYPHOID FEVER OF CHILDREN.—From a study of twenty-five cases of typhoid fever, all of which were complicated with albuminuria, Dr. A. Geier, of Heidelberg (*Jahrbuch f. Kinderheilkunde*, Bd. xxix., Heft, I—*D. med. Zeit.*, July 22, 1889) arrives at the following conclusions:

1. Albuminuria is of very common occurence in the abdominal typhus of childhood; it appears mostly in the first week or in the beginning of the second week, occasionally even on the second day. Its duration is variable, usually continuing from one to two weeks.

2. Nephritis occurs as frequently as in adults. The higher grades, however, amounting to renal insufficiency (hydrops) appear to be less frequent than in adult life as a consequence of typhoid fever. There is in childhood no special renal forms of typhus.

3. Children are subject to infectious diseases through which the kidneys often become affected, as is scarlet fever. These leave the individual more liable to the development of nephritis should typhoid fever occur within a short time after his recovery.

4. Fever, albuminuria, and nervous symptoms in typhoid fever are the result of one and the same cause—namely, intoxication of the system by the poison produced by the typhoid bacilli. J. M. F. *in Cincinnati Lancet-Clinic.*

Death in a bath.—A gentleman named Chapple was recently found dead in his bath, having been killed, it is believed, by fumes generated by a geyser employed for heating the bath water. It is well that the public should be warned against the danger attending the use of geysers, unless proper means of ventilation be carried out. Whilst the water is being heated an enormous amount of gas is consumed, and the products of combustion must seriously vitiate the atmosphere in a small confined space, such as bath-rooms generally are. Then, too, there is possibilty of the gas escaping unburnt. This, however, would probably be recognised by the smell, and so the danger averted. Every geyser should be fitted with a ventilating pipe. The latter should not be carried out of doors, as the wind may blow back the fumes into the bath-room, but should be conveyed into an adjoining corridor or large room. Further, we recommend the precaution of having the bath room door open whilst the water is being heated. We have it on authority that ordinary gas jets are preferable to Bunsen's burners. The best apparatus with which we are acquainted is one which is so constructed that if the water-supply fails the gas flame is reduced to a minimum, thus preventing an explosion of steam should the water come on again, and other serious consequences. It is also furnished with a ventilator.—*Lancet.*

Misapplied Ingenuity.—An Indian contemporary narrates some curious instances of misapplied ingenuity on the part of certain habitual criminals in that country. The discovery on a prisoner of a heavy leaden bullet, about three-fourths of an inch in diameter, led to an inquiry into the object to which it was applied. It was ascertained that it served to bring about the formation of a pouch-like recess at the base of the epiglottis. The ball is allowed to slide down to the dsired position, and it is retained there for about half an hour at a time. This operation is repeated many times daily until a pouch of the desired size results, in which criminals contrive to secrete jewels, money, etc., in such a way as to defy the most careful search, ane without interfering in any way with speech or respiration. Upward of twenty prisoners at Calcutta were found to be provided with this pouch formation. The resources of the professional malingerer are exceedingly varied, and testify to no small amount of cunning. The taking of eternal irritants is very common, but would-be in-patients very frequently overshoot the mark and render recovery impossible. Castor-oil seeds, croton beans, and sundry other agents are employed with this object in view, and the medical officers of Indian prisons have to be continually on the lookout for artificially induced diseases which baffle diagnosis and resist treatment. Army surgeons are not together unfamiliar with these tricks, but the British soldier is a mere child in such matters compared with the artful Hindoos.—*Med. Press and Circular.—Med. Record.*

A Fatal Dose.—A child five weeks of age has been killed in England by a dose of opium amounting to one-sixth of a grain. The drug was taken in the form of a "soothing syrup;" the parents being unable to read the printed directions and giving a dose of half a teaspoonful by guess.

Practical Method of mixing Vaseline and Water.—Krebo("Mal. cut. et syph.," No 2, 1889) has found that the addition of a few drops of castor-oil to promade containing vaseline and aqueous liquids effects their amalgamation. Two drops of the oil to a gramme of the liquid to be mixed with the vaseline are sufficient to make a fine emulsion.—*Journal of Cut. Ven. Diseases.*

Medical Items.

Japan has 13 schools of medicine.

Cincinnati reports another death from chloroform.

The Dublin medical schools are about to consolidate.

Artificial cloves have appeared in the market. Theatre-goers take warning!

There were twenty-one deaths from starvation in London last year.

More women are cremated than men. The reason alleged is that men most respect the wishes of their dying wives.

The medical schools of New York all report unusually large accessions of students.

The *Zoöphilist* states that there will shortly be established in London an anti-vivisection hospital.

The American Railway Surgeons will hold their next annual meeting at Kansas City, Mo., in May, 1890.

Dr. Mason, of England, estimates the number of lepers in China at from 200,000 to 300,000.

The Harveian Oration was delivered at the Royal College of Physicians, London, by Dr. Jas. E Pollock.

The University Medical School has decided that it is inexpedient to admit colored students.

The American Public Health Association publish a very attractive programme for next week.

Professor E. E. Montgomery has been elected President of the Society of American Gynecologists and Obstetricians.

Dr. Carl Forsteand, of Stockholm, a distinguished Swedish physician, is in this country making a general investigation of medical science in the United States.

The following advertisement has just appeared in a provincial newspaper in England: "Wanted, a Doctor to Vaccinate a Child in a Hygienic manner."

A telegram from Teheran states that cholera has appeared in the neighborhood of Kerind, near the Western Frontier, having been imported from Bagdad.

The Department of Botany of the British Museum has acquired the collection of microscopic slides made by the late Prof. de Bary.

Dr. A. P. Archinard has been appointed Demonstrator of Microscopical Anatomy and Bacteriology in the Medical Department of Tulane University.

The corner stone of the new building for the New York Academy of Medicine on West Forty-third Street was laid last week.

A dispensary in Paris has just been built by the jewels of a lady named Madame Edouard André. The jewels were given to the Philanthropical Society, and were sold for $80,000.

The total number of students now attending the German universities is 29,491; of these, 8,883 are studying medicine; 7,713 philosophy and natural sciences; 6,835 law; and 6,060 theology.

The Council of the German Association of Medicine has addressed a petition to all Governments, asking that women may be admitted to study medicine at all the German universities.

Coroners' juries proverbially bring in curious verdicts. The latest is by a Pennsylvania jury; an embankment caved in on some railroad laborers, and the verdict was: "Died of gravel."

The Lettsomian Lectures, says the *British Medical Journal*, will be delivered during January, by Mr. Edmund Owen, on Subjects in connection with the Surgery of Infancy and Childhood.

It is becoming a question much discussed by life insurance men as to whether the

rectum should be explored when examining an applicant for life insurance. Several instances have lately occurred wherein parties pronounced good risks have died shortly afterwards from cancer of the rectum.

Dr. Robert S. Rowe. a young physician, of this city, died at his home 1017 Light street, at the age of thirty-four. His funeral took place from his late residence. He graduated at the University of Maryland in 1880.

New York city employs forty physicians to visit the poor in the tenement houses, and pays them, too. This is an improvement over the usual forms of sweet charity. Physicians are accustomed to doing such work without remuneration, and uncomplainingly standing the accompanying abuse.

The *N. Y. Medical Journal* thinks that one cause of the ill-health of woman is the excessive weight and size of the household impliments. It says that these were made for men rather than women. Hence, he who would reduce these to the proportionate size and strength of women, will have conferred a lasting benefit upon the race.

The voice, as a means of personal identification, is of great value. It is reported that a war-veteran in Connecticut, almost wholly blind, recognized by the voice alone, a negro who was one of the three escaping slaves halted by him when on guard, near Newbern, N. C., in 1861, twenty-eight years before.

Huxley furnishes September with a reflection having an R in it, addressed to those who have recently resumed the consumption of bivalves: "Very few persons, I suppose, imagine that when this slippery morsel glides along the palate, they are swallowing a piece of machinery far more complicated than a watch."

Medical men in general are probably not aware that in France the doctor's claim on the estate of a deceased patient has precedence of all others. Even the landlord's claims for rent must yield to the doctor's fee. The courts have decided that as it is an imperative right of humanity that the dying should have the necessary care and treatment, such attendance should be paid for before all other debts.

It is announced from Vienna that an "Anglo-American Medical Association" has been formed in that city (offices, 12, Landesgerichts-strasse), with the object of forming a reunion among the numerous English-speaking medical men who go there for study, and providing them with every information. Such an office, properly directed, should prove of great service.

The Postal Laws make it larceny to take a newspaper and pay for it. A newspaper in Illinois recently brought suit against forty-three men who refused to pay their subscription, and in each case obtained judgment for the full amount of the claim. Of these, twenty-eight men made affidavit that they owned no more property than the law allowed them, thus preventing attachments. Twenty-two gave bonds, while six went to jail.

"With few exceptions, life insurance companies refuse to accept the services of homœopathic physicians as examiners of applicants for policies," is the complaint of a homœopathic journal. A few years ago it was claimed that the companies gave better rates to persons enjoying homœopathic treatment, but it was found that this was only the case with the Homœopathic Insurance Company, which became bankrupt. Both facts are suggestive.

The Imperial Pharmacopœia Commission of Germany is to meet in Berlin this month in order to frame the third edition of the Pharmacopœia Germanica. It is their aim to have the work completed by 1890. All recent additions to materia medica will be incorporated in this new edition. In addition to the Pharmacopœia the German Society of Apothecaries intend issuing a supplement which will deal with all the remedies not given in the official dispensatory. The profits accruing to the Society from the sale of this supplement will, it is said, be devoted to a philanthropic cause.

At a meeting of the Executive Committee of the Congress of American Physicians and Surgeons held in Philadelphia, Dr. S. Weir Mitchell was elected President of the next Congress, which will be held in Washington in September, 1891, and Dr. W. H. Carmalt, of New Haven, was elected Secretary, Dr. J. S. Billings, of Washington, Treasurer, Dr. Wm. Pepper, of Philadelphia, Chairman of the Executive Committee, and Dr. S. C. Busey, of Washington, Chairman of the Local Committee of Arrangements

Original Articles.

CHRONIC HYPERTROPHY OF THE TONSILS.

BY PEARCE KINTZING, M. D.,

Late Physician to the Presbyterian Hospital in Philadelphia, Pa., Physician to the Polyclinic Dispensary, and Lecturer on Chemistry, Woman's Medical College, Baltimore.

A brief description of this common affection, as it appears in one of our large public dispensaries, may direct more particular attention to its etiology and treatment, and thereby prove a benefit to both the profession and the public. Without laying claim to any particular original research on the subject, it is the aim of the writer to direct attention to its frequency; to some of the concomitant affections, and to present a few observations on its prevention, course and treatment.

Fully one half of the children under the age of fifteen years. who have been born and reared in Baltimore, of the class who present themselves at this dispensary, are observed to have varying degrees of hypertrophy, ranging from a bulging prominence to almost complete occlusion, and all the concomitant symptoms and physical signs of what might with propriety be called the catarrhal diathesis. For rarely, if ever, is the chronic form of tonsillar hypertrophy unaccompanied by post-nasal and faucial catarrh. So prevalent, in fact are these disorders, that Baltimore is known abroad as the "home of catarrhs."

True it is that the form of hypertrophy under consideration is confined chiefly to the lower grades of society and is more prevalent among children residing in the low-lying districts of South Baltimore and Locust Point, yet by no means is it limited by these conditions.

In looking for the cause of a pathological condition of such magnitude, we find; first, a predisposition, which manifests itself in a tendency to low grades of inflammation in all lymphatic glandular structures, accompanied by an increase in their connective tissue; and it will be found usually that enlarged lymph glands, especially in the cervical region, accompany tonsillar hypertrophy. In other words, the condition is one of the more remote outgrowths of the scrofulous diathesis; and we have so frequently seen the enlarged tonsils accompanied by phlyctenular conjunctivitis, recurrent ophthalmias, hypertrophied follicles, naso-pharyngeal catarrh, enlarged lymph glands, purulent otorrhœa and other like manifestations, that we can not doubt the relationship.

Next among etiological factors ranks climate, and preeminently dampness, with rapid variations of temperature, which act by causing sudden hyperæmia of the tonsils, as of the faucial mucous membrane; thus calling for increased activity and increased secretion. Repeated attacks of acute tonsillitis favor chronic hypertrophy, but that this factor is less unvarying than the preceeding one, is obvious from the fact that in high mountainous country, chronic enlargement is comparatively rare, although acute tonsillitis, especially the par enchymatous or suppurative form, is frequently epidemic, and far more common than in this region. In the mountain regions of Pennsylvania, hypertrophy is certainly a rare affection, and the same is true of the mountain regions of West Virginia.

Two varieties of the enlargement are observed; first, the hard fibrous, in which the connective tissue predominates; secondly, the spongy, which shows much less connective tissue, and much more hypertrophy of the follicles. The latter form attains the greater size, is of more frequent occurence and is more amenable to treatment. The acini frequently communicate with each other and in microscopic structure they resemble true adenoma; particularly is this the case with that form of enlargement which recurs after enucleation. The hard tonsil resembles the adeno-fibroma in structure. The enlargement frequently begins as early as the second or third year, but more usually about the sixth or seventh; and the mother's attention is drawn to the snoring respiration, the startings in the sleep, the mouth breathing and a persistent hacking cough, aggravated by sudden changes of air, or the intro

duction of any irritating substance into the throat. Sometimes the cough alone is assigned as the reason for placing the child under treatment. In addition to the above there is a peculiar tone of the voice and an almost constant effort at swallowing, which quickly attract the attention of the observer, and often enable him to make a diagnosis before the fauces have been examined.

As has been said the disease is usually accompanied by the various forms of catarrh of the naso-pharynx and fauces, all of which are aggravated by the mouth breathing. In addition, must be mentioned, as being usually present, an irritated condition of the stomach, accompanied by digestive disturbances, more or less gastric catarrh, and irregularities of the bowels. It is to be noted that the throat symptoms are always worse during these gastro-intestinal disturbances. Frequently there is accompanying the enlarged glands a hardness of hearing, which, however, is due to the catarrhal condition, and not to pressure on the Eustachian tube, by the tonsils, as has been frequently suggested.

The hypertrophy is less frequently observed in adults, and less often calls for interference, owing to a change in structure which occurs at about the age of fourteen or fifteen, resulting in a diminution in the size of the gland; also owing to the broadening of the palatal arch having increased the inter-tonsillar space.

The preventive measures which naturally suggest themselves are a bettering of the hygienic surroundings, or the removal to a higher and dryer locality; but the attempt of the first is about as hopeless and futile as the proposal of the second. For these reasons the condition will continue to exist, if not to increase. There is, however, one remedy which certainly is beneficial in lessening the tendency to enlargement of these, and all other adenoid glands, and which, if given in the early stages, exercises a decidedly curative influence. I refer to the iodide of iron, which acts both as a tonic and an alterative. It is best administered in the form of the syrup, combined with dilute phosphoric acid.

The forms of treatment, apart from the treatment of the allied conditions, into which it is not necessary to enter here, are many and elaborate. Excision was formerly much in vogue, and for this purpose the tonsillitome and the wire snare are usually employed. Much has been said of the dangers of the operation; and we believe them to have been greatly magnified; for we are cognizant of but two cases in which hemorrhage which could even be called severe, has occurred, in a large number of cuttings, performed at this clinic. Nevertheless, no amount of such assurances will ever remove a certain formidableness which the operation has for the general practitioner. Nor will all patients submit to excision; it has been our experience that very few will undergo the operation. The mere suggestion of it often results in the permanent disappearance of the patient from the clinic. Recurrent hypertrophy after excision, while not common, still occurs. Burnett states that the largest tonsils he has ever seen were the successors of excised ones.

The electrolytic needle is an efficacious means of reducing the bulk of the tonsil, but as yet is not in general use, and has not been used in this clinic. The method consists in introducing the needle, under a mild current, and permitting it to remain a few seconds. From four to six punctures are made at each sitting. The galvano-cautery point is used for the same purpose, and in much the same manner; being heated to a red heat and inserted into the enlarged mass. From twenty to thirty sittings are usually necessary, in clinical practice. Both methods are painful and only partially relieved by cocaine. The objection to all the foregoing methods and to the cautery knife is that they are not capable of application by the general practitioner, and require considerable experience and an outlay which is not ordinarily justified by the number of cases which falls into his hands. But there is no reason why the general practitioner should not seek to remedy the trouble.

Among the simpler measures, an old one is the application of a deliquescent solution of iodide of zinc by means of a

cotton applicator; introducing the substance into one or more of the crypts through the openings, which can always be found. Repeat as often as necessary.

But the remedy which, next to excision, has been employed here with greatest success, is the nitrate of silver in the form of the solid stick. Roll the crayon upon a wet cloth until it is reduced to a pencil point, then with a depressor in position, introduce the point as far as possible, even to the depth of half an inch, into the open follicle, and let it remain about ten seconds. Usually it is well to first introduce a probe into the follicle, and if it contains any inspissated secretion, to express it. I have frequently made from four to six punctures at a single sitting, and have never had a patient complain of pain. The treatment can be applied on alternate days, and usually from ten to fifteen sittings suffice. A salt solution for gargling should be given immediately after the punctures, to neutralize the secretion which flows from the tonsil, on removal of the point. The application is followed by a superficial slough, which comes away in a few days, and is followed by contraction. This treatment has certainly proved effectual at this clinic, and commends itself for its good results as well as for its simplicity.

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THE TREATMENT OF SUCH EAR DISEASES AS ARE USUALLY SEEN BY THE GENERAL PRACTITIONER.

BY HIRAM WOODS, M. D.,
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ACUTE SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR. CHRONIC SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR. CARE OF THE EARS. PAPER VII.

Acute Suppurative Inflammation of the Middle Ear.—This form of otitis media is closely allied to Acute Aural Catarrh. The early symptoms are identical, severe pain referred to the depth of the ear being the most prominent. Before the nature of the exudation into the tympanum is revealed by paracentesis or spontaneous rupture of the drum-membrane, it is impossible to tell whether we are dealing with a catarrhal or suppurative inflammation. From a therapeutical standpoint, it makes little or no difference which it is. The injection of the drum-head, or its bulging when exudation has taken place, shows clearly that the ear-ache is due to one or the other forms of otitis media. If there is no exudation into the tympanum, the object of treatment must be to prevent it. Local blood-letting, by leeches, is the best means we have of accomplishing this. All exudations are probably serous at the beginning, and later become purulent.

The term "acute suppurative otitis" is usually understood as indicating a purulent otorrhœa following the symptoms of acute aural catarrh. The discharge comes through a perforation in the drum membrane. This perforation and the meatus constitute the channel through which the exudation usually escapes. Occasionally it makes its exit through the Eustachian tubes, and at times through the mastoid cells. The pus may find its way beneath the skin covering the mastoid through an ulceration at the posterior margin of the drum membrane, and then by burrowing between the bone and the skin of the posterior wall of the canal. Finally it may be evacuated into the cranial cavity. None of these results are at all common.

The appearance of pus in the meatus may be the first indication of an ear disease. Dr. Roosa thinks that these "cases of sudden and painless perforation of the membrana tympani are nearly always preceded by some premonitory symptoms, such as pharyngitis, feeling of fulness in the ear, impairment of hearing, and so forth;" also that "where pain is felt long before the pus is discharged . . . it is mistakenly referred to some other part of the body or to a neuralgia, instead of an inflamma-

tion." This state of things is most frequently seen in the otitis of phthisis.

The discharge, as a rule, however, either follows the unsuccessful use of the antiphlogistic methods recommended, or else results from "waiting for nature" to relieve the sufferer.

The question is sometimes asked, "Why make a perforation in the membrane if the pus will naturally find its way out through one made without operation?" The reasons for operating are that pain is relieved sooner, the dangers from the retention of pus in the tympanum are greatly reduced, and the artificial opening heals more readily than does that produced by ulceration. After suppuration has commenced, what means are to be employed to check it? In most cases in which paracentesis has been performed, and in many in which it has not, the discharge soon ceases without treatment—*i. e.*, without any treatment except keeping the ear clean. Dr. Buck thinks a week is a fair time to wait for this. During this week, gentle syringing with warm water is the only local treatment needed, while attention should be paid to the condition of the naso-pharynx. If there is—and there almost always is—catarrh here, it should be treated with nitrate of silver solution. Dr. Buck also abstains from any effort to stop the discharge if *pain persists.* He uses nothing but warm water in the ear while it is painful, but continues the treatment of the naso-pharyngeal catarrh. When local medication becomes necessary, he recommends a weak solution of nitrate of silver (gr. ii-℥ i). This is instilled into the meatus until the latter is three-fourths full. Then, by pulling the auricle backwards and pressing the tragus against the solution in the meatus, while the patient swallows, some of the solution is forced into the tympanum. Dr. Roosa, also, advises astringents, commencing with zinc and subsequently using strong solutions of nitrate of silver, if the zinc fails. For some time I have postponed the use of astringents, until it becomes evident that I can not cure the disease in any other way. After the suppuration has commenced, I have the patient see me daily, if possible, more for the purpose of having the ear cleaned than for anything else. This cleaning is done by the syringe, absorbent cotton and Politzerization—the means universally employed. If the discharge does not cease in a few days with such treatment as this, I use a saturated solution of boracic acid in the same manner as described above for nitrate of silver. If this fails, I employ the silver solution.

When the perforation in the membrane is very small, great difficulty may be experienced in getting the fluids into the tympanum. The means usually employed under these circumstances are (1), enlargement of the perforation; (2), the middle ear pipette of Dr. Buck. Neither of these proceedures can be appropriately discussed here.

Chronic Suppuration of the Middle Ear.—When the acute suppuration has not been checked by treatment, or, as more frequently happens, has been neglected, changes occur in the tympanum, and these bring about "chronic otorrhœa." Among these changes may be mentioned the thickening of the mucous membrane, inspissation of pus in the tympanum and mastoid antrum, the ulceration of the membrane and necrosis of the bony walls of the cavity, and the formation of granulations and polypi. These conditions serve to keep up the formation of pus.

Without further discussion of the etiology of chronic suppuration, the treatment may be considered. Enough has been said, I hope, to make it clear that it is wrong to let an otorrhœa alone. Still the old fallacy that a "discharge from the ear is a good vent for the system" is far from being dead. There seems to be almost as much necessity for combatting it now as there was when otology became a recognized part of scientific medicine. Of course it is better to allow the pus to run out than to cork it up in the ear. The object of treatment is to *stop* the *formation* of pus. To this end the removal of the cause is of the first importance. When the cause is a polypus, it may be removed with the snare;

when it is caries of the walls, mastoid disease, or some other special complication, it requires special treatment. Leaving out these cases, there is a large number presenting the following appearances: The drum membrane is destroyed, to a greater or less extent, the tympanic cavity is filled with bad-smelling pus and after removal of this the mucous membrane is found thickened, sometimes smooth and sometimes dotted with minute granulations. These latter differ from polypi only in size. A chronic otorrhœa from a tympanic cavity presenting these appearances can usually be readily cured. If neglected, it will inevitably develop some serious and possibly dangerous complications.

The general principle underlying all treatment is absolute cleanliness. Unless this is maintained, nothing can be done. The next step is the application of remedial agents. In my opinion, "antiseptics" deserve the first place. Whether they shall be applied in powder or solution and what particular antiseptic shall be used must be decided in each individual case. My own rule is to follow the so-called "dry treatment" just as closely as I can. In obtaining cleanliness, I have met with very little success by *strict* adherence to "dry" cleaning. I think the syringe is an absolute necessity. When I have gotten the tympanum so clean that after wiping the membrane I can bring the cotton away with no odor attached to it, the syringe is discarded. If the odor returns, warm water is used at once. I do not think the dangers from moisture are nearly so great as those from decomposed pus. After the ear has been cleaned by syringing and Politzerization, an examination should be made through the speculum—special note being taken of the condition of the tympanic mucous membrane and the size of the perforation in the drum-head. If hardened pus is seen in the cavity, it should be softened and then syringed from the ear. The use of bicarbonate of soda solution for a day or two usually suffices to break down these masses of inspissated pus. After the tympanum is clean, the condition of the mucous membrane and size of the perforation are the main points, which influence me in selecting a remedy. When the membrane is not granular and the perforation large, I dry the former carefully and blow powdered boracic acid over it, enough to completely cover it. So long as the powder remains dry, I do not disturb the ear. If, on the next or subsequent day, it is saturated with the discharge, the cavity is again carefully cleaned—if possible, by wiping with absorbent cotton, if not, by the syringe—and the powder re-applied. Provided the powder stays dry, I do not attempt to remove it under two or three weeks, and then only take it away, as it crumbles, with Buck's curette or the angular forceps. I have had some relapses follow the use of the syringe for removing the dry powder, and now never use it for this purpose. I have found this method of treatment more successful than any other. Substantially it is that recommended by Politzer. During the past year I have used with success a solution of bichloride of mercury (1-4000), with the addition of dilute muriatic acid (1-200). My friend, Dr. Robert L. Randolph, first suggested this to me. Dr. Randolph's instructive paper may be found in the *Medical Record* of July 27, 1889.

When the perforation is too small to allow the proper application of dry boracic acid, I use the same agent in saturated solution, or else the preparation of bichloride of mercury just mentioned.

In *granular* suppuration, I have never met with much success in using dry boracic acid. Burnett says the granulations shrivel if treated in this way, but I have not found it so. Thorough cleaning with the syringe and the subsequent instillation of undiluted alcohol have given me better results than any other form of treatment. The burning caused by the alcohol does not last more than a few seconds. When the granulations are larger, it is often advantageous to touch them with nitrate of silver (60-120 grs. to ℥ i), or a crystal of chromic acid. This latter proceeding requires extreme care. For home treatment I rely entirely on the syringe for cleaning, and one of the liquid medications given above.

In concluding this study of the more common diseases of the ear, it may be well to mention a few points in connection with the care of the ears.

The Naso-Pharynx is the starting point of many cases of incurable deafness. The history of the patient goes clearly back through occasional attacks of cold in the head, now and then accompanied by pain in the ears or tinnitus, which soon pass off. After a time the hearing becomes somewhat impaired, but is is good enough for practical purposes, and little is thought of it. Usually when the patient reaches the specialist, the secondary changes in the Eustachians and tympanum, including the articulations between the ossicles, have so far advanced as to make treatment worth very little. Could any more have been accomplished had the patient applied earlier? This would depend largely upon the condition of the nasal and naso-pharyngeal membranes and Eustachian tubes. Each "cold" leaves behind it a little thickening in the Eustachians; this interferes with the proper ventilation of the drum cavity, and trouble soon commences here. There is quite a common disease, called by Dr. Roosa "Subacute Aur l Catarrh," which is manifested by diminution of hearing, with more or less naso-pharyngeal inflammation. It is specially common in children. I have had two such cases recently in which the use of the Politzer air-bag at once restored the hearing to ability to understand low conversation across the room. The moral of this is that while colds in the head are not specially dangerous to life, they are not the trifles they are commonly thought to be. If a child has a tendency to "colds," every care should be taken to lessen this tendency by such medicinal means as are easily obtained if one looks for them. No "cold in the head" should be considered cured until the Eustachian tubes have been opened by Politzerization.

The Nasal Douche is an instrument frequently used in nasal catarrh. It is capable of doing a great deal of harm to the ears. Many well authenticated cases of acute suppurative otitis media due to its use have been reported. If held too high, so as to make the stream too strong, the latter may enter the tympanum through the tubes, and so cause inflammation. Whenever the use of the douche causes ear-ache it should be discontinued.

The connection between the *teeth and the ears* has been already mentioned in a former paper. In addition to carious teeth producing otalgia, cases are recorded in which obstinate tinnitus and deafness have been due to the same cause. I have seen several cases of suppurative otitis media in children, which the parents stated had come on during dentition. Until I had read Dr. Sexton's articles I was inclined to credit this to the old-fashioned tendency to attribute everything wrong to teething. Since then I have more carefully watched the course of suppurative otitis in teething infants, and while not able to give any positive facts, feel justified in advising that the ears be not completely neglected during dentition. To bear in mind the possible etiological connection between dentition and otitis media seems to me now to be the duty of the physician.

The effects of *salt water bathing* on the ear are sometimes serious. I have seen cases of suppurative otitis media and of rupture of the drum-head which could be traced directly to this cause. In some of the cases of rupture of the drum-head, the accident had followed diving. Dr. Roosa thinks that one should take care not to allow the breaker to strike the side of the head. Whether the water be salt or fresh, the ear should be always carefully dried. After an otorrhœa has ceased, I always advise the patient to wear a plug of absorbent cotton in the ear while bathing. From an over-zealous desire to keep the ear *clean*, harm may result. Dr. Roosa advises that the little finger be the only instrument used for cleaning the ear. This, if covered with the handkerchief, will clean all parts of the auricle. I always advise patients to confine their ear-baths to the area reached by the little finger.

A few days ago I saw a case which illustrates very well the dangers of *boxing the ears*. A lady, while sitting in her

room at home, was playfully struck on the ear by her son. She knew "something had happened from the noise which followed the blow." There was not much pain. I saw her four days after the accident, and found a rupture in the lower and anterior quadrant of the tympanic membrane. Hearing was considerably impaired.

The *artificial ear-drum* is often used when it can do no possible good, *i. e.*, in cases of chronic adhesive aural catarrh. When the drum-head has been entirely or largely destroyed by suppuration, the hearing may, in exceptional cases, be helped by this device. It is well to close the perforation with a piece of moistened absorbent cotton, applying this to different points at the bottom of the canal, and then to test the hearing before directing the patient to buy an artificial drum-head.

In these papers, I have purposely omitted much that is of importance in the treatment of such diseases as have been considered, and have neglected altogether many serious complications. My object has been to give the methods of diagnosis in every-day use, as well as those therapeutical measures which are generally endorsed.

If one desires to go further into the subject, he will find the admirable works of Roosa, Buck, Politzer and others absolutely necessary. Without consulting one of these, the treatment of these complications should not be undertaken.

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SOME REMARKS ON A TRIP TO ATLANTIC CITY.*

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Last summer I had the privilege of spending several weeks at the greatest of American seaside resorts. I rise to fulfill my part of the programme of the evening by giving you a brief account of my visit and telling you something of Atlantic City as a health resort. My stay extended from the 9th of July the 3rd of September, including, therefore, a period of not quite two months, or to be more exact eight weeks and one day. Its object was the restoration of health and strength lost in a severe attack of sciatica. The study of the climate, in any systematic manner, was not therefore within my contemplation. Yet as a physician, trained to observe, enquire and reflect, cannot wholly divest himself of his habitual attitude of thought and action, I acquired—even with the limited opportunities at my disposal—some knowledge and experience, which I trust will not be altogether useless to myself and I venture to hope may be of some interest to my present audience.

Atlantic City is situated on an island, on the eastern coast of New Jersey, about thirty miles north of Cape May. This island is ten miles long and about half a mile in width; it is separated from the adjacent shores on the north and south by shallow sheets of water called inlets, and on the land side by a narrow channel connecting the inlets, called "The Thoroughfare." Inwardly from "The Thoroughfare" are stretches of low-lying land, marshy in character and at times more or less submerged by the waters of the ocean, which are being gradually reclaimed from the sea. They are known as "The Meadows." The city is accessible by three lines of railroad, connecting it with Philadelphia, which is 60 miles distant, and is reached in a ride of 90 minutes; two of these roads are under the control of the Pennsylvania Railroad, and the third under that of the Baltimore and Ohio Railroad. There is also a carriage-way connecting the island with the mainland, by a bridge crossing "The Thoroughfare." A narrow-gauge railway extends along the beach of the island, within a few yards of the water, from the upper part of the city to the southern extremity of the island, where there is a settlement called Longport. The ride over this road is very exhilarating and the scenery very fine. The city is regularly laid out and has many fine residences, both public and private. It is provided with all the accessories of metropolitan life,—

*Read before the Medical Society of the College, October 10th, 1889.

gas, electric lights, electric and cable cars, 'busses and phaetons, banks, good stores, numerous churches, first-class hotels. The resident population is estimated at about 10,000; during the summer this is augmented by visitors to 75,000–100,000 or more. A wide and elevated board-walk stretches along the shore for a distance of four miles, affording a fine view of the ocean and opportunity for agreeable exercise. At high tide the waves dash up under this walk at various points, often sprinkling pedestrians with their spray. From 11 to 1 in the morning and in the evening after tea it is always thronged with people.

The sanitary condition of Atlantic City is considered to be particularly good and is the boast of its authorities. The garbage is conveyed away from the houses daily in covered wagons, the sewage is carried off by pipes to the mainland, where the more solid portions are utilized in fertilization of the soil, while the liquid parts are emptied into an arm of the sea, where they mingle with the salt water and are carried out by the tides. At some of the seaside resorts, the plan of emptying the sewage directly into the ocean has been adopted, with the result of rendering the water near the shore foul and filthy and being washed in by the tide it is in no condition for bathing. Every effort seems to be made at Atlantic City to preserve the water of the sea pure and clean, so that there may be no obstacle to its complete and satisfactory enjoyment by visitors. This is as it should be, for the ocean is unquestionably the great attraction of the place, and impurities, whether offensive to the smell or sight, should be scrupulously avoided.

An abundant supply of drinking water is obtained from the mainland, being conveyed to the city in pipes. It not only suffices for drinking purposes but also for use in fires and in sprinkling the streets. There is also a fine fire department.

There are many ways of amusing oneself at Atlantic City. To many the sight of the white-capped breakers, dashing shorewards in quick and never-ending succession, and the immense expanse of water, stretching out towards the horizon, suggesting limits immeasurable and depth profound, are ceaseless sources of wonder and interest. Occasionally the prospect is enlivened by a passing steamer or a white-sailed yacht filled with pleasure-seekers; or one may watch the bathers in the surf or on the beach, or study human nature in the passing stream, with its infinite variety of dress and conduct. Thus the thoughts are constantly diverted and kept busy. Then for those that like them, there are fine fishing and sailing, and crabbing in "The Thoroughfare," a drive down the beach at low tide, a walk, or ride on the electro-motor, to the Inlet, or on the narrow-gauge to Longport, or a walk out on the piers. For the young, there are other congenial diversions in the switchbacks, the swings, toboggan-slides and merry-go-rounds. There are also several theatres in the town and on the piers, where entertainments of a high order are given.

The bathing is not universally practised. But a small proportion, comparatively, of those who visit the place resort to it. Some are afraid of the water, others are prevented by ill health, whilst with many it does not agree. Still the number of those who indulge and enjoy it is large. During the rush in August, the beach and water during bathing hours are black with bathers. The usual time for the bath is from 11 to 1 o'clock, without much regard to the tides. A few prefer to bathe in the afternoon about 5 o'clock. The dressing-rooms are convenient to the water, which is reached usually by steps leading down from the boardwalk to the beach. Certain precautions, of course, are necessary in taking the baths; for example, they should never be taken just after or before a meal, nor when one is over-heated. Many persons have a pernicious habit of standing or sitting on the shore after having been in the water, which is evidently not in accordance with rules of common sense. One should not enter the water in haste, and the bath should be of limited duration—from 15 to 30 minutes being a good average. Most persons remain too long in the water and

thus become chilled and liable to cramps. Blueness about the lips and finger nails always shows that the limits of safety have been passed. Many, thinking to utilize their time to the fullest extent, or else through indifference to the laws of health, are guilty of excessive indulgence in this particular, and thereby render themselves liable to injury rather than benefit. Instead of feeling invigorated and toned-up by the exercise, as they should, they come out of the water chilled, weak and relaxed, and with blood stagnating in the internal organs; they thus easily become the prey to catarrhs and inflammations of various sorts. Colds are not infrequent in consequence of exposure on shore or in the water. An affection of not rare occurrence, and often serious in its results, is inflammation of the middle ear, due, as I believe, to a catarrh commencing in the throat and extending outwards along the Eustachian tube. Several cases thus contracted came to my notice during the summer. Deafness which may even be permanent, and perforation of the tympanic membrane, with persistent otorrhœa, are possible consequences of this mishap. Persons suffering with catarrhal and inflammatory affections, Bright's disease, or who are subject to fainting, apoplectic or epileptic attacks, or who have organic disease of the heart, are of course debarred from the use of sea bathing. For these and for the rheumatic and gouty, and also for all during the colder months of the year, the hot salt water baths are available and often prove highly beneficial. There are establishments where they can be procured at moderate prices.

Careful meteorological observations made by the employés of the United States signal service, prove that the climate of Atlantic City is remarkable for its dry and bracing qualities. As compared with other stations along the coast, from New England to the Gulf, and also with points inland, it is shown that the temperature is higher in winter and lower in summer, that the variations are less and less sudden, and that the amount of rainfall and the humidity of the atmosphere are considerably less. For instance, in a table* showing the annual amount of rainfall of fifteen of the principal cities and stations on the Atlantic coast, from Maine to Florida, inclusive, for the year 1878–1879, Atlantic City exhibits the lowest figure, 40.60 inches, Charleston coming highest with 64.33 inches; and in a similar table for the previous year Atlantic City comes second with 42.90 inches, New York having the minimum 42.68 and Wilmington the maximum 84.12. And in a table showing the mean barometer for ten coast stations, for the same two years, of the twenty figures given those for Atlantic City are only exceeded five times. The porous character of the sandy soil must also be taken in connection with the annual rainfall, as it promotes the rapid absorption of surface water, so that the ground is quickly dried up after showers by wind and sun.

Atlantic City also apparently possesses advantages in regard to wind; for instance, the whole movement of wind during the year 1879 was there 84,117 miles, whilst at Barnegat, on the same coast, it was 109,059 miles and at Cape May 135,883 miles. This corresponds with my own observations, but I can speak only of the hot months, which do not exhibit the highest velocities of wind.

Of the advantage in point of temperature over more inland points, especially the large seaboard cities, I am convinced by personal evidence, as well as from the testimony of the newspapers and visitors from these cities. There must be several degrees of temperature in favor of Atlantic City as compared with them. It was not a hot summer, as we all know, and the heat was tempered by frequent grateful showers, but nevertheless during the last half or two-thirds of August it was quite oppressive as I had occasion to learn in a brief visit to Philadelphia. Now, at Atlantic City, I wore thick winter clothing almost constantly. Only rarely did I find it agreeable to change to a thin coat in the middle of the day, whilst in the evening I generally found a light overcoat

*Containe l in a pamphlet by Dr. Boardman Reed, of Atlantic City, second edition.

essential to comfort on the board walk. One evening, about the 20th or 22nd of August, I caught a cold, althongh I did not go outside the door further than the porch, and then only to say good-night to friends. Very rarely was a blanket at night superfluous or unwelcome. There was almost always a slight breeze astir near the water, even when the wind was from the land—due, I suppose, to the motion of the water. When the wind was from the ocean this became stronger and sufficiently penetrating to render some attention to position and dress necessary. There was a very appreciable difference between that part of the city bordering on the shore and the centre of the town. Even on the main thoroughfare, Atlantic Ave., which is only two squares from the board walk, the atmosphere was frequently still and oppressively hot, when near the beach it was fresh and exhilarating. I may say, further, that although the season was so unusually rainy, mists and fogs were rare and altogether exceptional.

The character of the climate, as above indicated—stimulating, dry and bracing, —points to the necessity of cautioning invalids as to care in dress and habits. The body should be well protected against exposure, the functions of the skin should be well guarded and the changes of temperature (as from mid day to evening) should be provided for by such addition to the wraps as prudence suggests. With these precautions, duly carried out, it is rarely necessary for those who are able to get about to confine themselves to the house at any time. The night air, it must be remembered, is not dangerous there as in some situations where dampness and malaria prevail. And this mention of malaria suggests allusion to the fact that it does not exist at Atlantic City as an indigenous product. The only cases seen there are in persons who have contracted the disease before coming. All the channels and inlets about the island have salt water, and there is said to be no body of fresh water nearer than the Delaware River, clear across the State. The meadows are not therefore a source of malaria, as one might be inclined to suppose. In this respect the place resembles mountain localities, which are equally immune.* Whilst the salt marshes are not responsible for this foe to humanity, they do furnish another enemy—the gay and festive mosquito. But even the visits of King Culex are tempered by the sea-breezes, which send him back unceremoniously to his habitat. It was only when the land breeze blew, therefore, that we were troubled with them, and even then they were not so bad as to keep us awake at night, and we had no need to use nets.

What are the diseases or conditions of ill-health, for which the climate of Atlantic City is best adapted? Here, again, I would not venture to speak only on my own experience, and we are happily not without opinions of those who are entirely trustworthy. Dr. Boardman Reed, a well-known physician of Atlantic City, who has had a large experience there, extending over many years, and who has recorded his observations from time to time in the medical journals, places nervous exhaustion, in its various forms, and malaria at the head of the list. Such cases, he says, almost invariably improve with great rapidity. Chronic affections are also usually benefitted and the climate, especially during the winter and spring, is particularly adapted for the earlier stages of consumption and for bronchial and throat affections. He regards the improvement in these cases as due, not to any specific influence, but to the tonic effect of the atmosphere, which strengthens digestion and thereby secondarily assimilation and nutrition. The experience of others corroborates that of Dr. Reed, in respect to the above affections. Rheumatism and gout are among the ailments considered as capable of being benefitted, and it is said not to be an infrequent occurrence to see invalids throwing aside their crutches shortly after their arrival, and regaining, almost at once, their lost powers of locomotion.

Dr. W. V. Keating, of Philadelphia, is particularly strong in his evidence con-

*Dr. Toner, of Washington, states that it does not occur at an elevation above 1,000 feet.

cerning these two diseases. His language is so emphatic that I shall quote it: "The climate of Atlantic City affords relief and cure to all cases of rheumatic fever and arthritis, even in the most acute stages. I know of many instances in which invalids, after having recourse, without benefit, to the various mineral waters and baths in the country, have there been entirely cured by a summer sojourn." He attributes these striking results to the "dryness of the climate," which he compares to that of Nice, on the Mediterranean. The evidence regarding asthma is conflicting, Professor Pepper's results not being favorable, whilst Dr. Reed's are quite positively the reverse. I should be disposed to give the place a trial in an aggravated case of this disease. The majority of Dr. Pepper's cases of organic disease of the heart have not done well; on the other hand, he has seen many cases of incipient phthisis, and even phthisis in the second stage, greatly and permanently benefitted by residence, with strict living and treatment. He has had similar experience in chronic pleurisy and in relaxed conditions of the skin. Convalescence from acute diseases—especially typhoid fever—is almost sure to be promoted by a stay at Atlantic City, and nearly all the special diseases of women are benefitted by sea-air. Allusion must also be made to the power it possesses to promote sleep, a consummation which, at times, we find our therapeutical resources impotent to accomplish.

To sum up: We have here a remarkable combination of situation, soil and atmosphere, giving us all the benefits that can accrue from sea air and ocean trips, almost at our doors. We must not expect the results that have been described to follow a mere residence only; a ceaseless vigilance is necessary, with constant exercise of self-control and the judicious employment of hygienic and medicinal measures. By the aid of these, combined with patience and perseverance, improvement in any suitable case may, I believe, be confidently expected.

A word or two, in conclusion, regarding residence at Atlantic City, during the winter months. For many years the place has been growing in popularity as a winter and early spring resort, until now thousands of persons go there in those seasons, bent on health or quiet recuperation and enjoyment, away from the crowd and noise of the cities.

The mildness of the winters and the large number of sunshiny days offer superior advantages to such visitors. Dr. Reed speaks as follows upon this point:

"Observations taken at my office, in the centre of the town, at 7 A. M. and 12 M., 6 and 10 P. M., show that in December, 1879, there were 26 days in which the thermometer did not fall below 32°, the freezing point; also that there were only two days in the same month, when the thermometer did not indicate at noon a temperature above 40°; and that there were ten days in which it was not below 50°, at the same hour. During the January following (1880), there were 24 days in which the mercury never fell below the freezing point at any hour, and only two days during which it went below 30°. It was only once in the same month lower than 40° at noon, and only three times lower than 45° at the same hour. On 19 of the 31 days, the thermometer stood at 50° or above, at midday."

Many of the hotels are provided with long glass galleries and porches, fully protected from cold and wind, where patients may sit or promenade, and enjoy the cheering view of the ocean while taking their sun-baths.

There are some points connected with the geography of Atlantic City that may be alluded to here as in its favor. The Eastern coast of New Jetsey, as is well known, extends north-east and south-west, and so it happens that, owing to the peculiar topography of the island on which Atlantic City is situated, its ocean side presents almost due south. This affords the advantages of a southern exposure. Furthermore, the sea breezes come mainly from the south and east; they are therefore naturally comparatively mild breezes, and they are perhaps rendered still milder by the proximity of the Gulf Stream. This large volume of heated water from the Tropics passes

up northwardly between the island of Cuba and Florida, widening as it advances, and finally, about the latitude of New Jersey, spreading out, like a fan, into numerous currents, one of which flows only a few miles outside the coast. Now, the winds which blow from the south and east pass over several hundred miles of this heated water, and it is evident that they must be considerably tempered in their effects by this circumstance.

As compared with Florida—which has been the chief winter resort of American invalids—Atlantic City offers superior advantages of climate and situation. It is far more accessible and economical, the southern trip being tedious and expensive; it can therefore be utilized by thousands who could not otherwise obtain the benefits of winter climate. Colorado, as also Minnesota, is amenable to the same objections, whilst the severity of its winters precludes residence there for a large part of the year.

There are other advantages connected with situation that readily occur on reflection, such as nearness to home and friends in case of mishap, ease of obtaining medical or other aid, etc. Finally, the social feature, so largely predominant, is not to be ignored, cheerful society, companionship and diversion being important aids to recovery by the sick.*

2111 Maryland Avenue.

Disinfection by Steam at High Pressure.—Dr. A. D. Lübimoff (*St. Petersburg Inaug. Dissert.*, 1889, p. 54), has experimented with the steam disinfection apparatus of Geneste and Herscher and with a disinfection chamber in the St. Petersburg Clinical Military Hospital. The steam current had a pressure of six atmospheres. Strips of Swedish filter paper saturated with various microbes, were put into test-tubes; these were placed in pillows, mattresses and bundles of clothing, and kept in the disinfecting chamber from half an hour to three hours. The inoculated paper was then introduced into agar-agar or broth cultivation media. The experiments demonstrated that sporeless bacteria were killed in half an hour, while pathogenic microbes were entirely destroyed after an exposure to steam at 113° or 114° C. The disinfecting chamber must be able to maintain this temperature for an hour and distribute the steam uniformly to all parts of the apparatus. Articles to be disinfected must be dry, because if damp they interfere with the height of the temperature; and they should be distributed singly in the chamber, or be done up in small parcels. The management of such chambers should invariably be in the hands of medical men, and each municipality should have a public disinfecting chamber, as in Berlin. [The disinfecting apparatus of Geneste and Herscher is a metallic cylinder 1·3 metres (4¼ feet), in diameter and from 2 to 4 metres (6½ to 13 feet), long. The cylinder is closed and made air-tight by means of two doors supported on wheels, one at each end; the doors are made steam-tight by clamp-screws. In the interior of the cylinder there is a car running on an iron track, on which the soiled articles are placed. Steam, generated by a neighboring boiler, enters the chamber by two sets of tubes—one to raise the temperature to 130° C., the other, pierced with holes .40 millimetres in diameter, to allow steam to enter the chamber when it is desired. The necessary pressure-gauges, thermometers, etc., are placed on the exterior of the cylinder.]—*N. Y. Med. Jour.*

For Infantile Eczema.—

℞.—Acid boric gr. lxxxj.
Vaselini ℥j.
Bals. Peruan gr. vijss.

M.—S. Apply to the parts affected.

—*Delapert, Revue de Ther.*
—*Times and Register.*

For Acne.—Gailleton has employed with success the following pomade:

℞.—Iodochloride of mercury gr. ivss.
Ung. simp ℥j.

M.—S. Apply with prolonged frictions. The reaction is very energetic.

—*Revue de Ther.*
—*Times and Register.*

*The writer desires to acknowledge his indebtedness to the writings of Dr. Reed and Sergeant Blundon of the United States Signal Service, and particularly to the valuable tables they have published.

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WILLIAM B. CANFIELD, A.M., M.D., Editor.

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BALTIMORE, OCTOBER 26, 1889.

Editorial.

THE MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.—Elsewhere we publish a circular issued by the Committee on increasing the membership of the Faculty, which very clearly presents the importance of this subject to the profession of this State.

If any argument is needed to prove the importance of a wider and more efficient organization of the profession in Maryland, it can be found in the very thorough work which the medical societies of Virginia, West Virginia and North Carolina have done for the profession of their respective States. While our neighbors have chosen the spirit of progressiveness, and have achieved most commendable results, the profession of this State has been unusually apathetic and indifferent to those professional interests which can only be reached through an organized effort. Up to the present time the Medical and Chirurgical Faculty of Maryland has received a most meagre support from the profession throughout the State. With a membership of 208, there are only 34 members who reside beyond the corporate limits of the city, and of this number over one-half reside in Baltimore county.

With such a state of affairs, it is not to be wondered at that the Faculty has gone on from year to year, contracting until it has assumed the dimensions and importance of a local organization, in which the city members have the largest share and interest. This seems surprising, too, when one reflects that in years past no physician could practise medicine in this State without holding a diploma of the Faculty. From having experienced the largest influence and control over professional interests in the State, the pendulum has swung so far in the opposite direction that now, practically speaking, it exercises none.

The time has come for a complete reform in the work and methods of the State Faculty. The profession of this State must have a State Medical Society if it wishes to make any progress in keeping up with the progressive work of neighboring States. The Faculty is the proper organization around which the profession of this State should gather. It has every element of aim and purpose in its charter and organization to wield a commanding influence over the affairs of the profession of Maryland. All that is required is an awakening of the interest of the profession in the State to its claims, and a concerted effort upon the part of its friends, to make the Faculty the medium through which the better

interests of the entire profession of the State will be advanced.

We commend the work of the Committee to the earnest attention of this State, and urge every physician in Maryland who respects his profession and who is solicitous for its advancement, to ally himself with those who now constitute the membership of the Medical and Chirurgical Faculty of Maryland.

Skilled Nursing for the Middle Classes.—At the recent opening of the Johns Hopkins Training School for Nurses, the head of the school, Miss Hampton, alluded to the part which the school would take in furnishing skilled nursing at a moderate rate.

It is an undeniable fact that good nursing is as important, and frequently more important, than good medical attendance. The wealthy can have both, while many of those not so well off have too little of either, For a number of years both the wealthy and the poor had the advantage of skilled nursing in sickness, the wealthy in their homes by paying for it, and the poor in the hospitals gratuitously. But the class between these two, commonly called the "middle class," not able to pay large fees for good nursing and too proud and independent to go to the free wards of a hospital, either depend on the unskilled and bungling attendance of well-meaning friends and relatives or have poor untrained nurses at a small price.

If this new school will furnish to this middle class capable undergraduate students as nurses at a moderate fee, and at times gratuitously, the nurses will gain a valuable experience parallel with the physician's experience in a hospital or dispensary, the school will spread its reputation and good name, while the people receiving this nursing and the medical attendant as well will have an invaluable aid toward combatting the disease.

Chronic Hypertrophy of the Tonsil.—It seems a pity that the tonsil,—a small gland whose function is not clearly understood,—has not received more careful attention on the part of the physiologist and pathologist. The physician has studied it clinically in its pathological conditions with great persistence, but perhaps with too little result. Empiricism has played too important a part in the treatment of affections of the tonsils.

In chronic enlargement treatment should be either local, constitutional or operative. Probably equal numbers of opinion could be found for each treatment. In the child, the dread of an operation both on the part of the child itself and its relatives, prevents an operation when it would be the best treatment. Many cases recover on the use of the iodide of iron, as Dr. Kintzing in this issue very wisely suggests. Local treatment is tedious, unsatisfactory and often does nothing but lose the patient who goes to some one using more active means.

The truth is in children it is impossible to lay down a fixed rule as to treatment of these chronic hypertrophic conditions of the tonsils. In some, the operation yields brilliant results, while in others if not followed up by constitutional treatment for a long time, the hypertrophy will recur. Dr. Kintzing has given a very clear review of all the methods of treatment, with the addition of his own valuable experience, at a large clinic.

Miscellany.

Medical and Chirurgical Faculty.—The undersigned Committee, appointed to solicit members for the Medical and Chirurgical Faculty of Maryland, respectfully request that you will consent to become a member of this old and highly respectable medical organization.

The ground upon which this request is made is as follows:

First. There is great need of a more thorough organization of the medical profession of this State than now exists. The medical profession in the neighboring States of Pennsylvania, Virginia, North Carolina, and, in fact, in almost every State of the Union, is thoroughly organized and supports a large, useful and progressive State Medical Society. The Medical and Chirurgical Faculty is the only State Medical Society in Maryland. It has now only 208 members, with over 2,000 physicians in the State. It should number 500 to 1,000 members. Will you not be one to help to swell its membership up to this latter number? With a large and active membership, its value to the profession in this State cannot be overestimated. You need, and the entire profession of this State needs, the help and influence of such a State organization. The profession of Maryland cannot grow in a large and influential way, cannot successfully meet the evil effects of quackery and professional incompetency without such a State Medical Society as is now proposed.

Second. To aid in this increase of membership, the Faculty, at its last meeting, resolved that beginning with its next fiscal year, April, 1890, the membership fee shall be reduced to *five dollars*, which includes the annual dues for one year. For subsequent years the annual dues will be only $5.00 for city members and $2.00 for county members. This gives each member full benefit of the Library, with its liberal assortment of medical periodicals and books, as also the annual volume of Transactions. Each member will thus receive value in full for his outlay, besides the larger good which will flow from a more thorough and broader organization of the profession in this State. The annual expense is a small one to each member, whilst the membership can be made both useful and pleasant to everyone who will enter into the work the Faculty has in view, viz., the cultivation and improvement of the professional mind and the elevation of the professional esprit de corps. Organization and professional co-operation are the greatest forces at our command for wielding together an advantageous and efficient system of medical work. No physician who respects his profession and the higher aims of medical work can afford to ignore the valuable influence of a vigorous and progressive State Medical Society. The Medical and Chirurgical Faculty is the body around which the profession of Maryland should gather and strengthen.

Third. It is proposed to hold a semi-annual meeting, of two days session, in one of the counties' seats, on the second Tuesday and Wednesday in November of each year, for the benefit of the local profession in the different sections of the State.

The first meeting under this plan will be held in Hagerstown, on November 12th and 13th, proximo. You are cordially invited to attend this meeting and take part in its deliberations. If the foregoing views commend themselves to your consideration, you are requested to fill out the enclosed blank application of membership (which is to take effect at the April meeting in 1890), and forward the same to the Chairman of the Committee.

The Committee likewise requests that you aid in its work of organization by handing this circular to any physician of your acquaintance whom you think would make a useful and desirable member. The following paragraph from the Constitution will instruct you as to qualifications necessary to render an applicant eligible to election to membership in the Faculty.

"Any person actively engaged in the medical profession, may become a member of the Faculty who shall be recom-

mended by the Board of Examiners and secure four-fifths of the votes cast at his election, upon payment of *five dollars* to the Treasurer. He shall be exempt from all dues during the first fiscal year of his membership." (Article 4, Section 1, of Constitution.)

Very respectfully,

T. A. Ashby, Chairman, S. T. Earle,
C. H. Jones, T. B. Evans,
W. J. Jones, J.H.Branham,
Jackson Piper, A. C. Pole,
William Lee,

Committee.

The Acids of the Stomach.—There is no doubt that the chief acid found in the stomach during natural digestion is free hydrochloric acid. This has been abundantly proved by Bidder and Schmidt, and numerous observers succeeding them. The methods used are, however, too long and too complicated to employ in clinical work. The physician wishes to know what, in a particular case of disease, are the chemical changes going on in the stomach; whether, for example, hydrochloric acid is present as well as pepsin and organic acids. Now, in the examination of the contents of a diseased stomach three forms of acid may be present—hydrochloric acid, a mineral acid; organic acids, such as lactic acid, butyric, etc., and thirdly, acid phosphates. It is chiefly of importance to determine the presence of hydrochloric acid and of organic acids. Many methods have been proposed for doing this; they consist mainly in testing the effect of the stomach contents on various solutions. Thus a solution of methyl-violet is decolorized by hydrochloric acid, so that if this reaction is obtained the free acid is present in the liquid tested. Lactic acid turns the violet a dirty yellow. Tropæolin also is turned deep reddish-brown by free hydrochloric acid. Unfortunately these tests, simple as they appear, are not accurate, since the reactions are intefered with by the presence of peptones and of some neutral salts, and, as these are usually present in the stomach contents, no reliable results can be obtained by using methyl-violet and tropæolin. They have been superseded by congo-red, which is turned blue by free hydrochloric acid, and by a solution of vanillin and phloroglucin in alcohol, which is turned a deep red by the same acid. These simple clinical tests are, however, rendered useless by the fact that they are interfered with by the presence of peptone, ammoninm salts, chlorides and phosphates.

In the present state of our knowledge, therefore, there is no reliable indicator for the presence of free hydrochloric acid in the stomach. Other methods which may be used are too complicated for clinical use. Thus ether has the property of dissolving organic acids from a liquid, leaving the mineral acids in solution. It may thus be used for separating the lactic, butyric, and other acids from the hydrochloric acid; and if in a liquid obtained from the stomach it is found that ether removes the whole of the acids present, it may be concluded that no free hydrochloric acid is present. In many cases this conclusion would be an important one as a clear indication for a line of treatment. Dr. Leo has published a new method for the indication of free hydrochloric acid which may prove useful. Leo considers the case where it is only a question of the presence of free hydric chloride and of an acid phosphate. To a few drops of the stomach contents a pinch of carbonate of calcium is added; if the acidity, as tested by litmus paper, disappears, only a free acid is present, but if the liquid is still acid after the addition of the chalk, an acid salt is present. If, moreover, organic acids be present they must first be removed by shaking with ether before the chalk is added. It does not seem that Leo's method is one that can be applied at the bedside, because the detection of free hydrochloric acid is chiefly requisite in those cases in which organic acids are also present, as in cases of dilated stomach. At present, indeed, a ready method, suitable in clinical practice for the detection of free hydrochloric acid in organic liquids is a desideratum.—*British Medical Journal.*

The Incubation Period in Infectious Diseases.—Dr. James Finlayson (*Glasgow Med. Jour.*, May, 1889), in preparing a code for the regulation of the school attendance of children exposed to or affected by infectious diseases, found that there was a decided diversity of opinion among authorities as to duration of the incubation period and as to the time of quarantine for children that had been exposed. The incubation period in scarlet fever is given as low as 1 day and as high as 14 days, with an average duration of quarantine from 10 to 14 days; measles, from 3 to 17 days—quarantine 16 days; rötheln, from 4 to 21 days—quarantine from 16 to 21 days; mumps, from 4 to 24 days—quarantine from 21 to 24 days; chicken-pox, from 2 to 18 days—quarantine from 18 to 21 days; small-pox, 5 to 19 days—quarantine 16 to 18 days; diphtheria, 1 to 14 days—quarantine 10 to 12 days; enteric fever, 1 to 30 days—quarantine 28 days; typhus fever, 1 to 21 days—quarantine 21 to 28 days; erysipelas, 1 to 13 days—quarantine 10 days. As in the United States local ordinances involving this question require the physician to furnish a certificate to the child, the periods of quarantine above given may serve as precedents.—*N. Y. Med. Jour.*

Dysmenorrhœal Membrane. — Is membranous dysmenorrhœa a little more than menstruation and less than pregnancy? Can dysmenorrhœal membrane always be distinguished from the decidua in early pregnancy? These questions are of high import and deserve the attention of practitioners and histologists. The subject was raised at the July meeting of the Obstetrical Society of London, where some decidua-like fragments were exhibited. They had been discharged from the uterus some time after removal of the appendages. The theory that membranous dysmenorrhœa represents periodical abortion within one month after impregnation is very plausible. It is supported by Dr. Cory's case, published in the *Transactions of the Obstetrical Society*, vol. xx, 1878, where no membranes were passed at period whenever the patient lived apart from her husband. The phenomenon might, on the other hand, be explained by the sexual rest which temporarily cured a true "dysmenorrhœa," as distinguished from an incipient pregnancy. All cases of membranes passed from the uterus at regular intervals deserve the most careful clinical record and at the same time, the membranes ought to be preserved in spirit and sent to a competent histologist. The habits of the patient should be investigated; the effects of separation from her husband very closely watched. On the other hand, the histologist, as a man of science, should feel sure that he can correctly interpret the microscopical appearances of the membranes. Above all, he must not give an opinion unless he knows, from practical research, the appearance of the endometrium at and between the catamenia, and also in early pregnancy. Much light has been thrown on the subject by Dr. Minot's monograph "Uterus and Embryo," published in the April number of the Boston *Journal of Morphology.—British Med. Jour.*

A Novel Vermifuge.—While the following advice seems to us as apt to kill the host as the guest, we quote it for the benefit of our readers from the *Journal of Pharmacy* for September: A whole cocoanut, grated fine, mixed with milk, and taken on an empty stomach on rising, is fully as reliable a tæniafuge as male fern, kousso, or pomegranate, etc.; it is far more agreeable to the taste. No after-treatment is necessary, as a single dose usually is all-sufficient.—*Medical News.*

Physiological Albuminuria.—Dr. Malfatti, of the Laboratory for Applied Medical Chemistry at Innsbrück, controverts the belief that albumen or serum albumen is one of the normal constituents of urine in healthy subjects. He mentions the case of a healthy man in whom the ordinary tests apparently proved the presence of albumen, while Heller's test gave negative results. There was also a singular want of correspondence between the various reactions, as either the test by boiling seemed very satisfactory and acetic acid and

ferrocyanide of potassium gave no reaction, or *vice versâ*. Filtration after the test by boiling did not always remove the apparent albumen, which was still discoverable in the filtered urine by ferrocyanide of potassium, especially when chloride or acetate of sodium had been added before boiling. The addition of ferrocyanide of potassium after boiling and adding acetic acid increased the turbidity considerably. When the urine mixed with acetic acid had been allowed to stand, and was then filtered, acetic acid and ferrocyanide of potassium did not make it so turbid, and had sometimes no effect at all, when the same filter was used repeatedly, especially with the addition of acid phosphate of soda, which sometimes prevented the occurrence of turbidity even after a single filtration. After the urine had been treated by reagents which throw down mucin, but not albumen, no albumen could be found, though many tests were tried. The author concludes from his experiments that in the case reported by him albumen was either entirely absent or present in an extremely small quantity (1 in 2 million parts). He considers that the body which has given rise to the supposition that albumen occurs in physiological urine is not an albumen, but a kind of mucin, which is easily broken up into typical mucin and a peptone-like body, and he believes that the presence of albumen in the urine of apparently healthy persons is really indicative of a morbid process, though not necessarily of one of at all a serious character.—*Lancet.*

The Influence of the Closure of Schools on an Epidemic of Measles.—The health officer of Cardiff, Dr. Edward Wolford, reports (*Sanitary Record*, May 1889), that in the autumn of 1888 an epidemic of measles occurred among the children attending school, and notwithstanding every effort to stamp out the outbreak by careful inspection, enforcing and advising ordinary precautionary measures and distributing printed circulars of information, the disease became so prevalent that by the end of November almost one-third of the pupils were ill or confined at home. The schools were closed for four weeks, and the number of cases at once decreased; only four cases appeared among twenty thousand scholars after the schools were reopened. The author considers that the material was not exhausted, but that the comparative isolation of the children stopped the epidemic. This opinion is supported by the fact that in a previous epidemic, when the schools were not closed, the mortality was double that in the present instance.—*N. Y. Med. Jour.*

Fatal Hæmorrhage from the Stump of the Umbilical Cord.—Uncontrollable hæmorrhage on separation of the cord in the new-born infant is not common. It is very serious; only 32 per cent. of recorded cases appear to have recovered. Dr. Tross, of Karlsruhe, describes a case in the *Berlin. Klin. Wochenschrift.* The infant was five days old; as the stump of the cord was in process of separation, severe hæmorrhage set in. A single vessel was found to be the source of bleeding, but all attempts to tie it securely failed. The umbilical tissues were secured by transfixion, but free hemorrhage took place from the tracts made by the transfixing needle. The tissues were firmly tied above the seat of transfixion, and the hæmorrhage at last ceased. The stump was swabbed with perchloride of iron and wool containing that salt laid upon it, and retained by means of a binder. In the night hæmorrhage recurred; the mother, acting on Dr. Tross's advice, at once tied another ligature around the parts below that which he had applied, but in vain; the child died. The entire integuments assumed, after death, a remarkable lemon-yellow tint, which steadily increased. The bloood which escaped during life showed no disposition to coagulate. The above is described by Dr. Tross as a case of omphalorrhagia neonatorum spontanea.—*British Med. Journal.*

The Southern Surgical and Gynecological Association, will hold its next session at Nashville, Tenn., November 12th, 13th and 14th, 1889.

Medical Items.

Cases of yellow fever are reported at Key West and in New York Harbor.

Leprosy is said to be very prevalent in Zululand.

The number of names in Dr. Cordell's new Catalogue of Alumni of the University of Maryland School of Medicine is 4,108.

Dr. Phillippe Ricord, the celebrated French surgeon and syphilographer, died in Paris last Tuesday. He was born in Baltimore, Dec. 10, 1800.

Dr. C. Ashton Jessup dled at Kenilworth, Baltimore county, last Saturday. He graduated at the University of Maryland, in 1881.

A medical society was organized at the Johns Hopkins Hospital this week, with Dr. Wm. H. Welch president and those of the hospital and dispensary staff as members.

The price of quinine has again fallen, and consequently the large holders thereof are suffering from an attack closely approximating ague.

Scarlet fever in London is still on the increase, and it is thought that another of the hospitals of the Metropolitan Asylums Board will shortly have to be opened.

The *Medical Waif* has been wafted into the embraces of the *North American Practitioner*, which esteemed journal has absorbed and extinguished it.

Dr. T. A. Ashby has been elected Professor of Gynecology in the Baltimore Medical College, vice Dr. J. H. Scarff, resigned. Dr. Ashby still holds his position in the Woman's Medical College.

The manageers of the Central London Scoool District have been authorized by the Local Government Board to borrow £24,000 to enable them to erect a new ophthalmic hospital at Hanwell.

Professor Leidersdorf, the eminent Austrian alienist, who was consulted when it became a question of deposing Sultan Murad V, died suddenly on October 9, at the age of 72.

According to official statements from Vienna, there have been 5,983 cases of cholera in Mesopotamia during the past few months. There is said to have been of late a daily average of 200 fatal cases.

An epidemic of dengue fever is prevalent at Smyrna, between six and seven thousand persons having been attacked. The disease has spread to Constantinople. It is believed thai the outbreak is connected with that at Cyprus last year.

A series of four demonstrations on the subject of Bacteriology are about to be given in Glasgow, by Mr. Ernest Maylard. Such a course given in this city this winter by the instructors from the Johns Hopkins bacteriological laboratory would doubtless be appreciated.

Typhoid fever is epidemic at Aurora, W. Va., and it is said the country for miles around is infected. It is said that there is scarcely a family without one or more of its members prostrated with the disease, and in some localities there are scarcely enough well persons to nurse the sick.

At the annual meeting of the New York Obstetrical Society, held on the 15th inst., officers for the ensuing year were elected as follows: President, Dr. J. E. Janvrin; vice-presidents, Dr. H. C. Coe and Dr. R. A. Murray; recording secretary, Dr. R. A. Buckmaster; treasurer, Dr. J. L. Murrill; pathologist, Dr. J. R. Nilson.

Evidence exists that deaf mutes are not confined to the human race. In a farmer's herd for twelve years was a cow which never gave any sign of hearing, and the evident attempts of which at lowing had only resulted in a feeble guttural. Nothing abnormal could be discovered in the ears or the vocal organs.

The Regents of the University of the State of New York, through Professor Melvil Dewey, their Secretary, have been taking steps toward the carrying out of the law of 1889, which requires certain students of medicine to pass examinations preparatory to entering upon their professional studies.

At the next meeting of the Clinical Society, Dr. Wm. Osler will read a paper on "Calomel as a Diuretic;" Dr. William P. Chunn will read a paper entitled "The Removal of Intra-Vaginal and Intra-Uterine Fibroids, with Specimens," and Dr. Wm. B. Canfield will relate a "Case of Pneumonoconiosis Pulmonum, with a Microscopical Demonstration of the Sputum."

Dr. Sternberg, of the United States Army, accompanied the excursionists of the Congress of American Nations, in the capacity of surgeon. He was selected by the Secretary of War for this duty because of his familiarity with the Spanish language and the Spanish-American people. On account of sudden illness, however, he has been obliged to return to Baltimore.

Dr. Hamilton, the surgeon-general of the Marine Hospital Service, is in receipt of a letter from Professor Rudolph Virchow, of Berlin, saying that the organizing committee of the Tenth International Medical Congress has been constituted by the election of himself president and Dr. Lazar secretary general.

Dr. Charles Carroll Lee, who is a Marylander, although long settled in New York, has resigned his surgeoncy to the New York State Woman's Hospital. Dr. Horace T. Hanks, his faithful assistant for the last ten years, succeeds him. Dr. Lee retains his other hospital connections, and his professorship in the New York Post-Graduate School.

A young physician from Holland, says the *New York Medicinishe Monatschrift*, while taking a pleasure trip among the mountains of Bohemia, was called on in an emergency to dress a trifling wound. On his return to the nearest town to continue his travels, he was arrested by the authorities for practising without a license, but escaped through friendly intervention, and now vows never to extend his art to those needing it in foreign lands.

The Chicago Medical Library Association, incorporated last month for the purpose of securing and maintaining a library for the advancement of the medical and kindred sciences, held its first regular meeting on October 4, at the Grand Pacific, at which the following were elected officers: President, Dr. N. S. Davis; Vice-President Dr. Edward A. Lee; Secretary, Dr. Bayard Holmes; Treasurer, Dr. E. Ingals. Dr. William F. Smith was made a Director in place of Dr. Mary H. Thompson.

The American Academy of Medicine is endeavoring to make as complete a list as possible of the Alumni of Literary Colleges in the United States and Canada, who have received the degree of M. D. All recipients of both degrees, literary and medical, are requested to forward their names, at once, to Dr. R. J. Dunglison, secretary, 814 North Sixteenth Street, Philadelphia, Pa.

The English Courts have lately decided that in a case "where a wound is given which, in the opinion of competent medical advisers, is dangerous, and the treatment which they adopt is the immediate cause of death, the party who inflicted the wound is criminally responsible." This decision was reached in a case in which it was sought to shift the responsibility from the person who inflicted the wound upon the doctors who sought to save the man's life. Thus the surgeon is free from more than ordinary responsibility in treating such cases. As a result, he will be inclined to undertake operations for the relief of the injury that otherwise he would not, and so give the accused a better chance of avoiding the charge of murder.

The Tribunal of Helsingborg, Sweden, says the *Bulletin Médical*, of October, has just been the scene of a very curious affair. A young medical student had brought an action against a physician of that city for having hypnotized him at different times without his authority, which had resulted in a great change in the student's nervous system, and a weakening of his mental faculties. A large number of witnesses were examined, but to the great surprise of the court, they not only absolutely contradicted each other, but related the most remarkable and improbable stories. Finally a physician in court said that all the witnesses had been hypnotized and their testimony had been suggested to them by the defendant. The court was obliged to adjourn to consult experts on the subject.

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Maryland medical journal

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